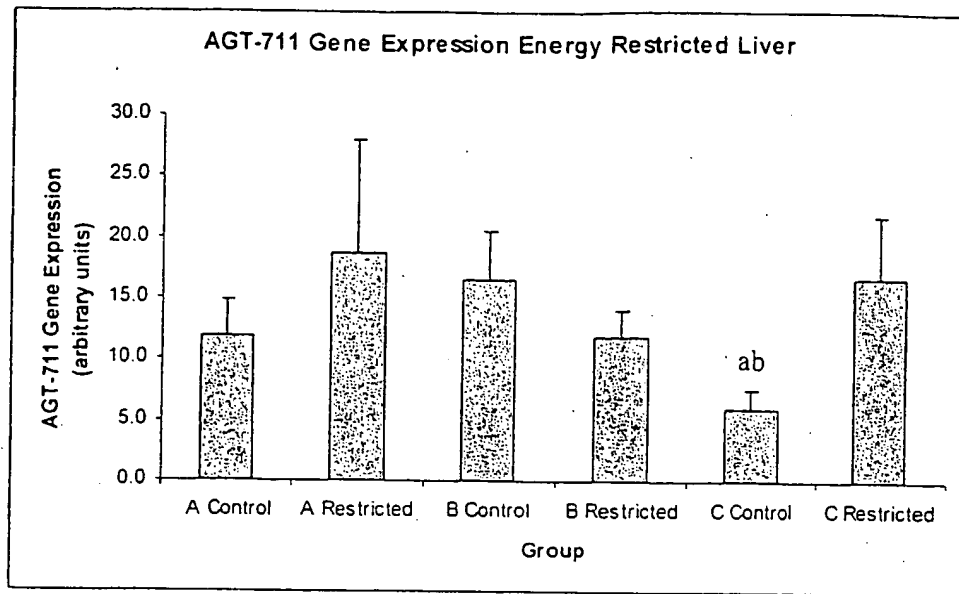


Figure 1:



a:  $p=0.024$  compared to group B control.

b:  $p=0.008$  compared to group C restricted.

Figure 2:

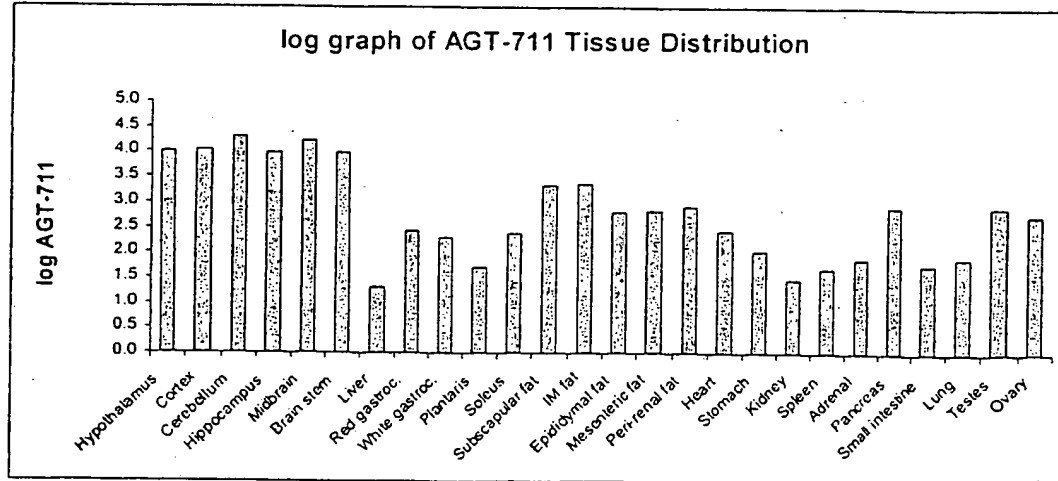
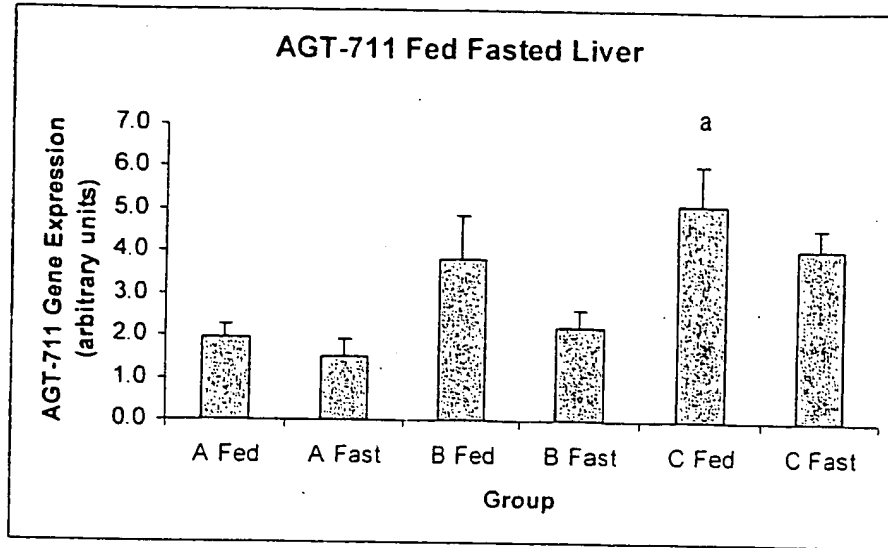


Figure 3:



a:  $p=0.019$  compared to group A fed animals.

Figure 4:

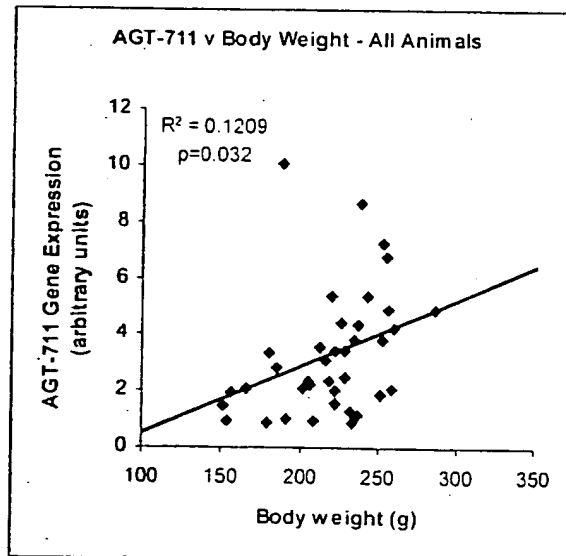


Figure 5:

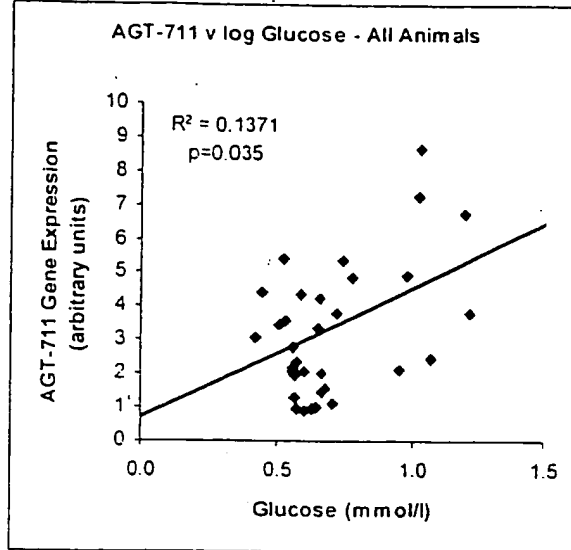


Figure 6:

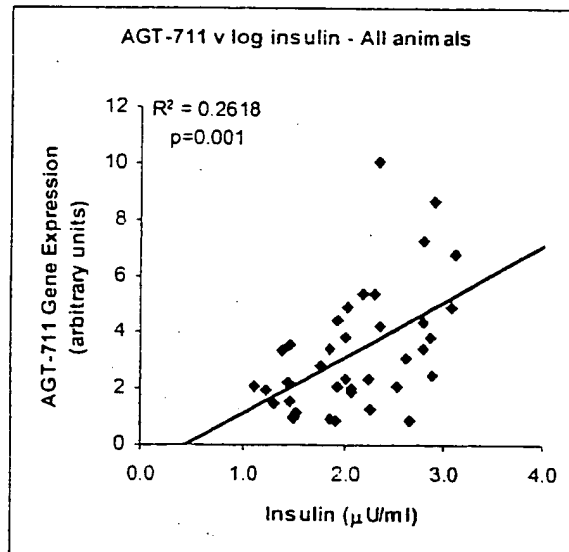
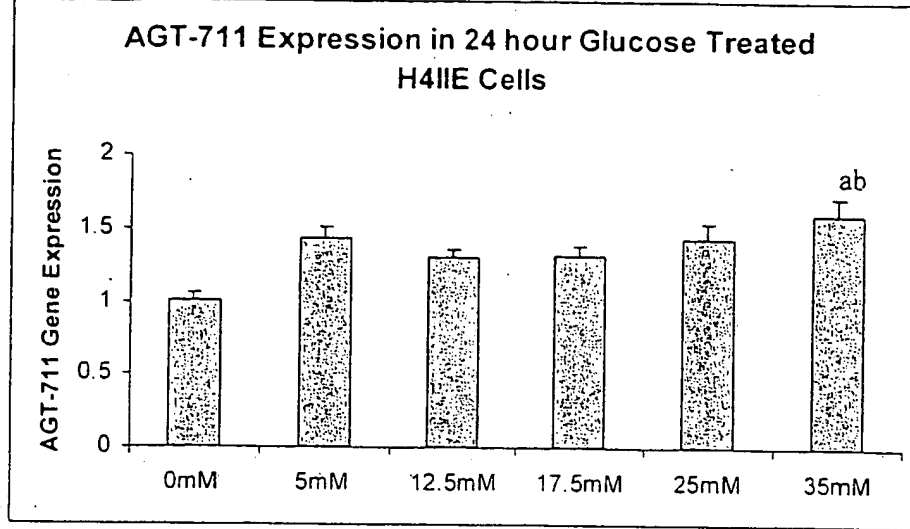


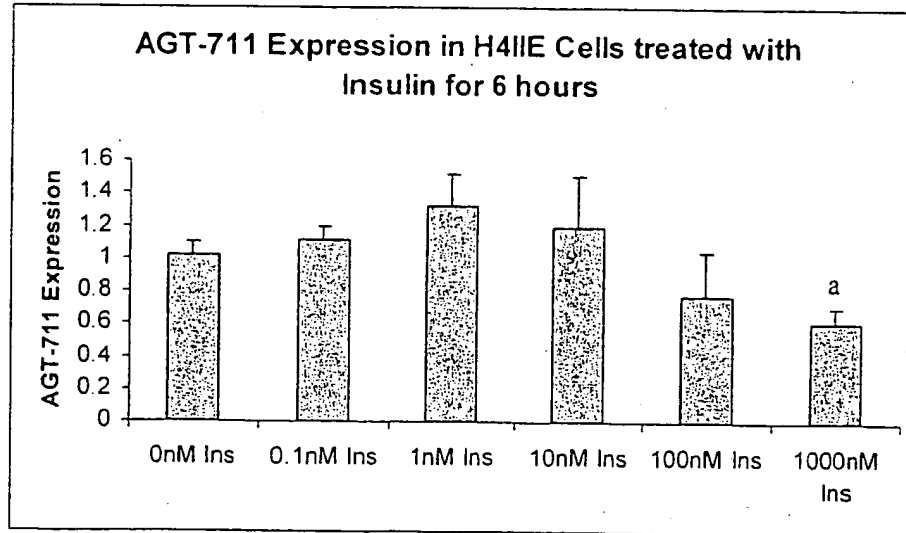
Figure 7:



a:  $p=0.013$  compared to 17.5mM glucose.

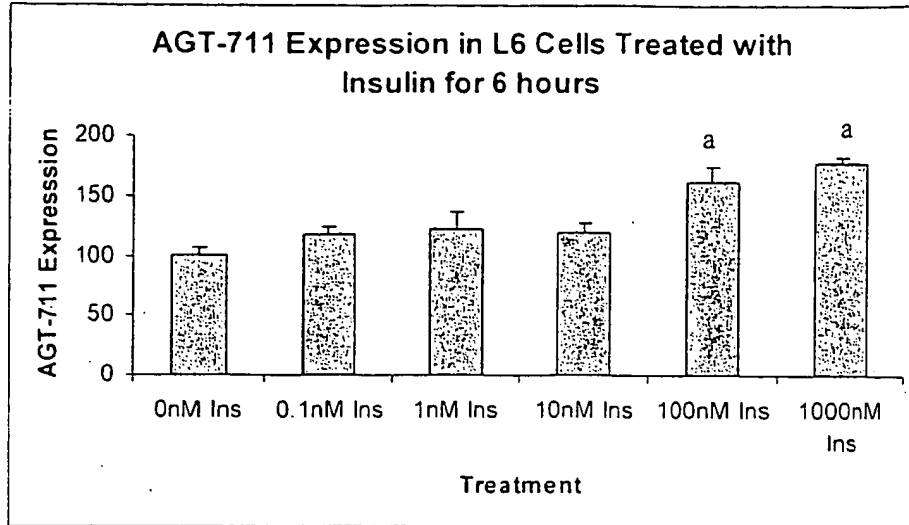
b:  $p=0.020$  compared to 25mM glucose.

Figure 8:



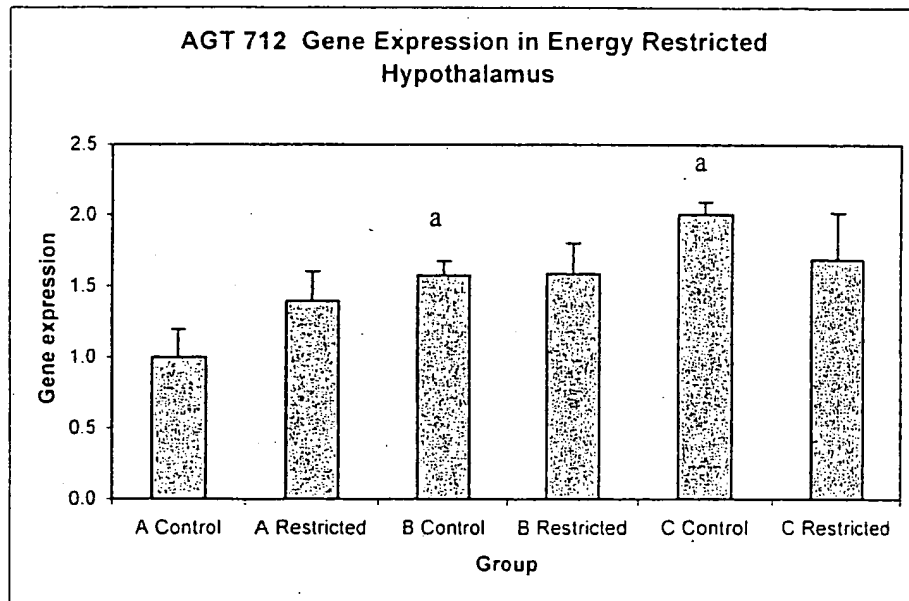
a:  $p=0.044$  compared to 0.1nM insulin group.

Figure 9:



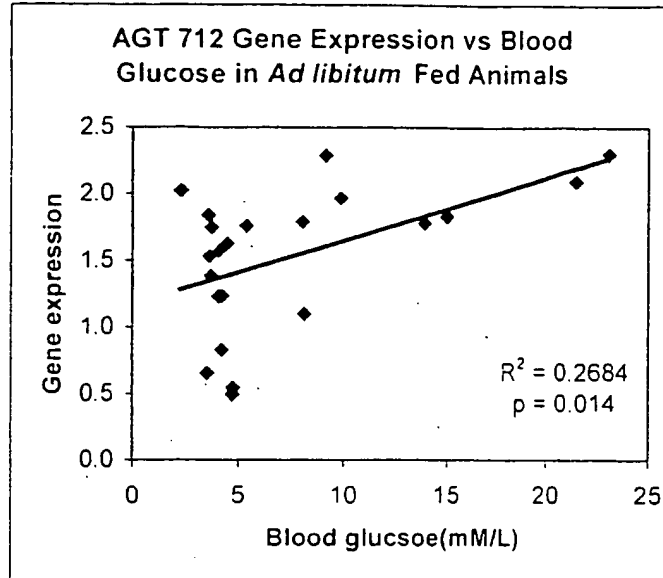
a:  $p < 0.004$  compared to 0nM, 0.1nM, 1nM and 10nM insulin groups.

Figure 10:



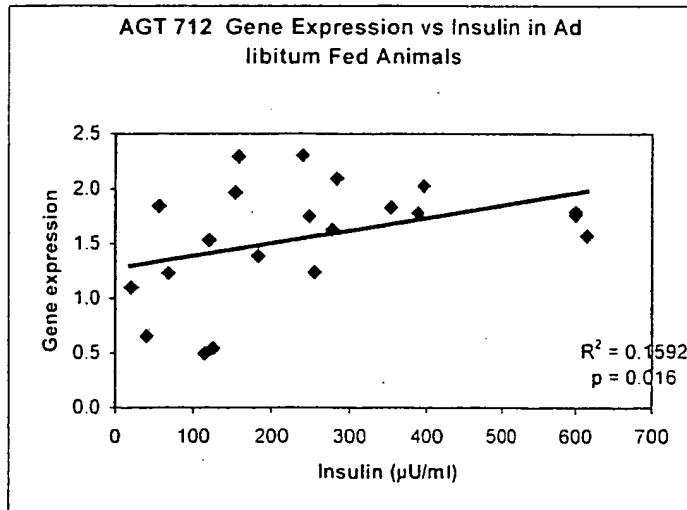
a Gene expression significantly higher in B controls ( $p=0.039$ ), C controls ( $p=0.001$ ) when compared to A controls

Figure 11:



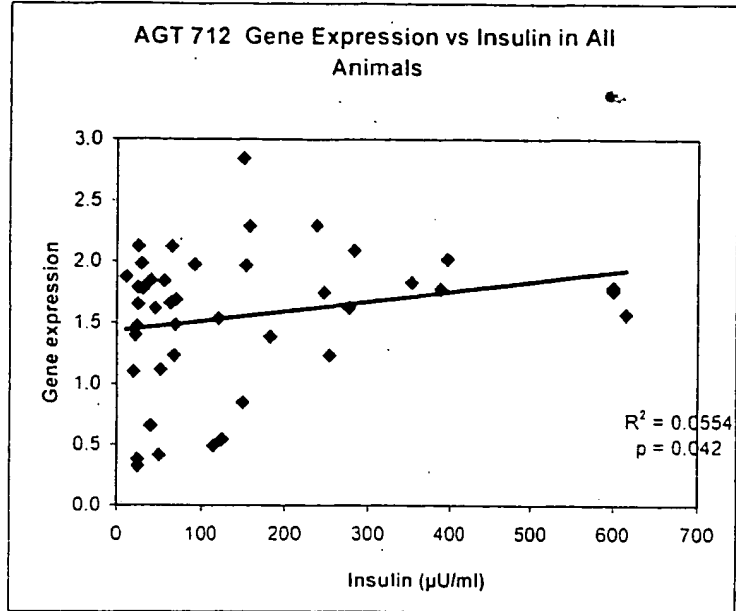
AGT 712 gene expression is positively correlated with post restriction glucose in control animals ( $p=0.014$ )

Figure 12:



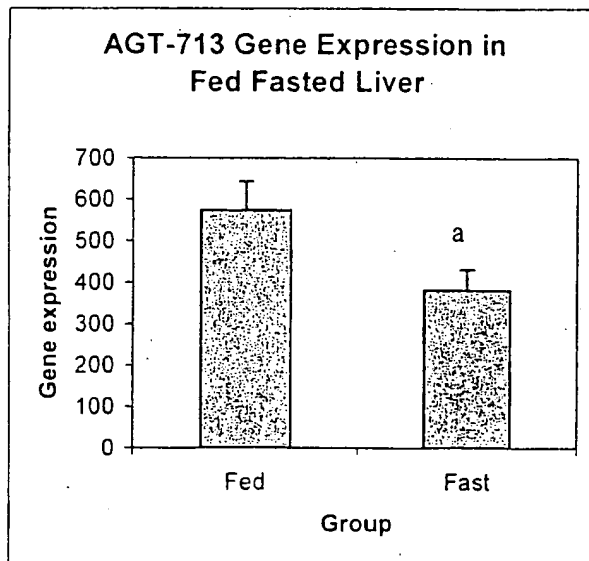
AGT 712 gene expression is positively correlated with post restriction insulin in control animals ( $p=0.016$ )

Figure 13:



AGT 712 is Positively correlated with post restriction insulin in all animals ( $p=0.042$ )

Figure 14:



a:  $p=0.039$

Figure 15:

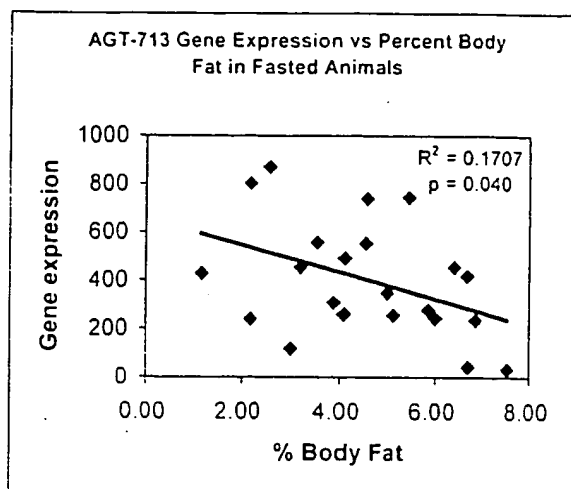


Figure 16:

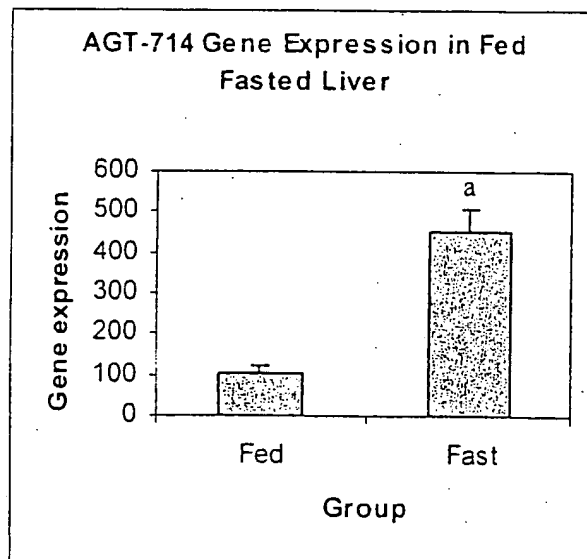
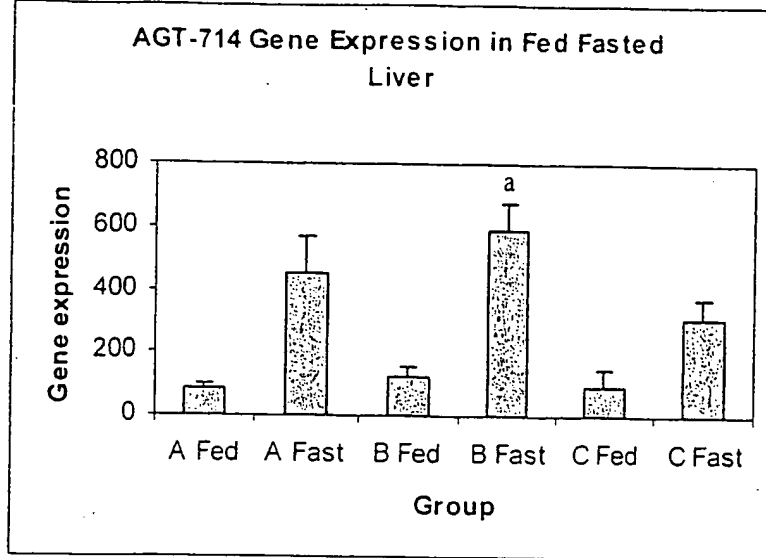
a:  $p < 0.0001$

Figure 17:



a: p=0.005

Figure 18:

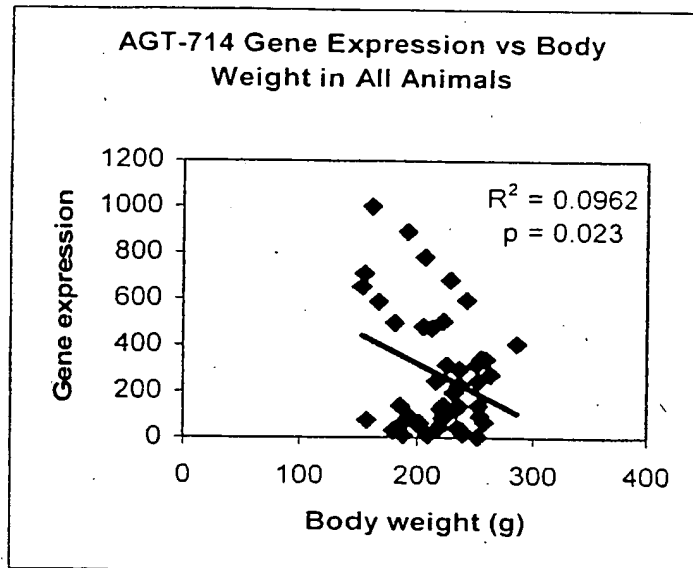


Figure 19:

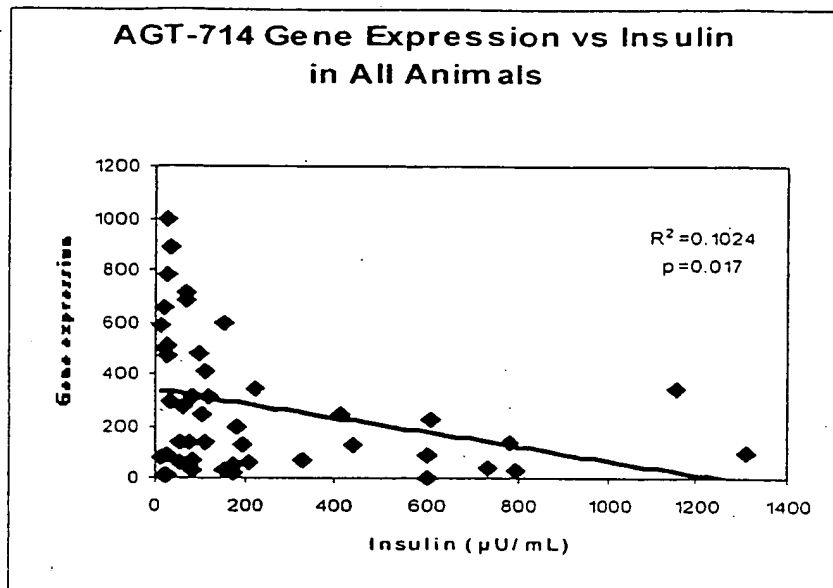


Figure 20:

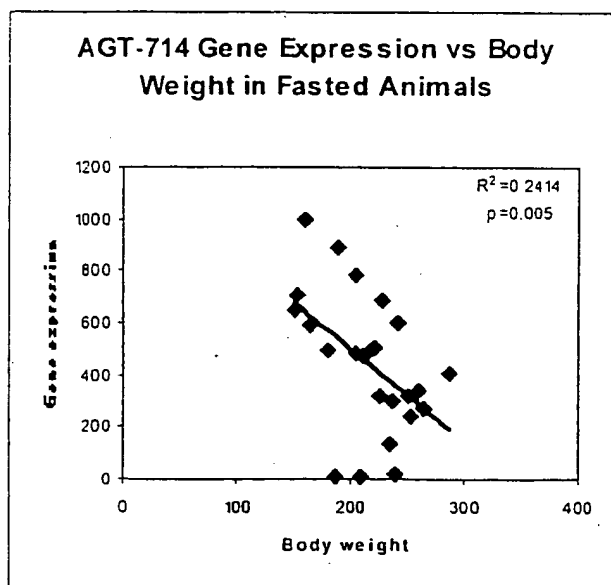


Figure 21:

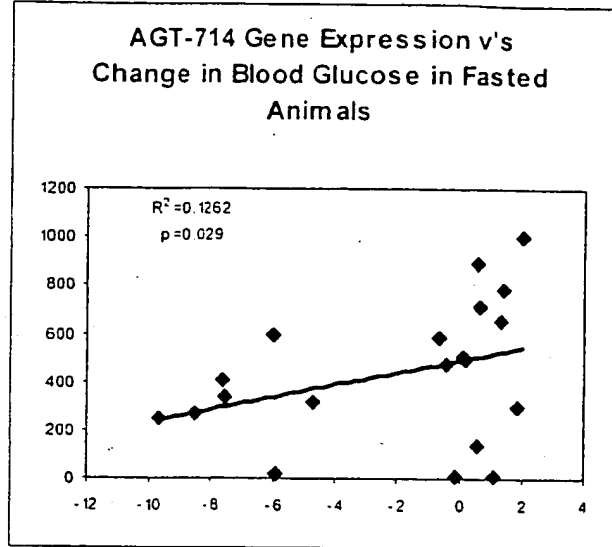


Figure 22:

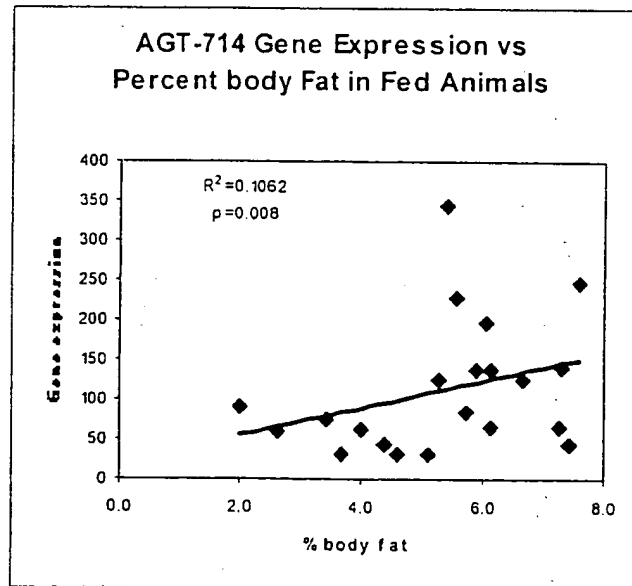
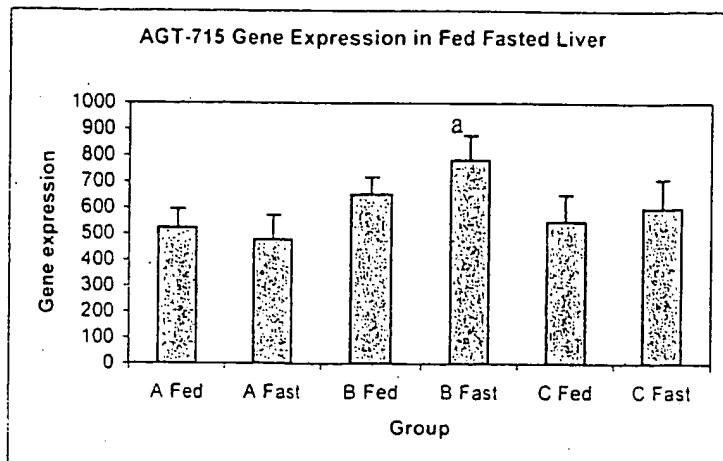


Figure 23:



a:  $p=0.022$ , B fasted significantly higher gene expression compared to A fasted

Figure 24:

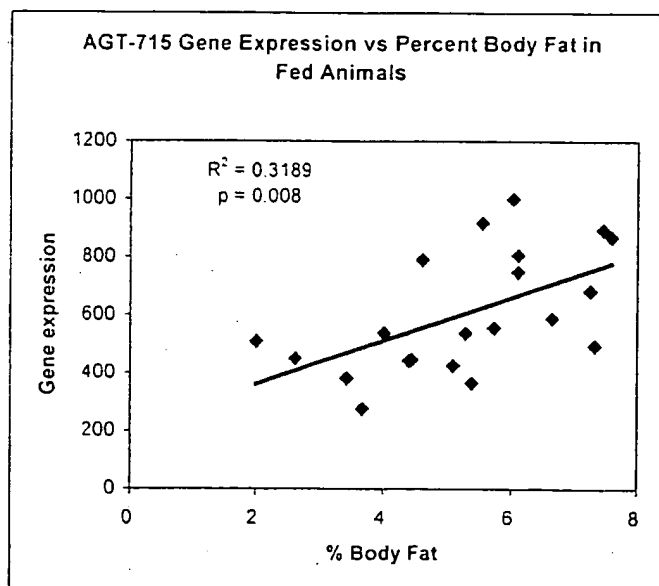
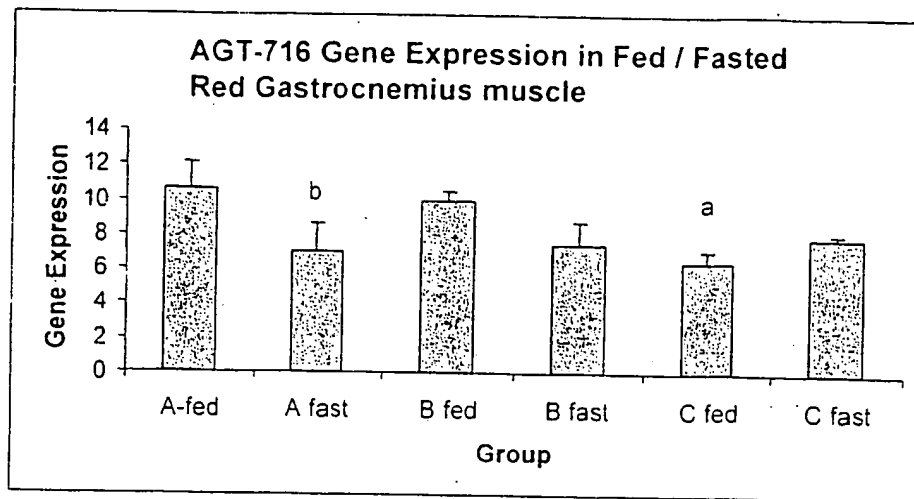


Figure 25:



a:  $p=0.009$ , Gene expression significantly lower in Group C animals compared to Group A and B animals.

b:  $p=0.02$ , Gene expression significantly lower in Group A fasted animals compared to Group A fed animals.

Figure 26:

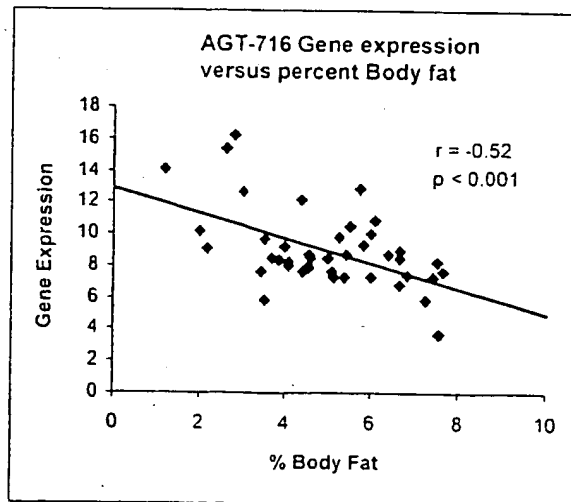


Figure 27:

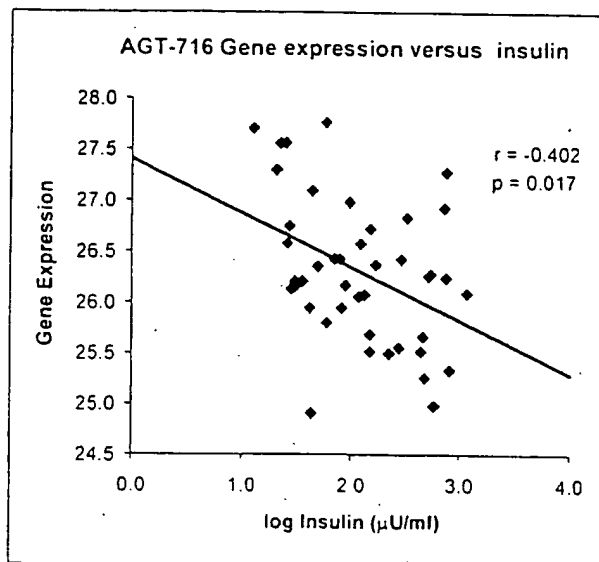
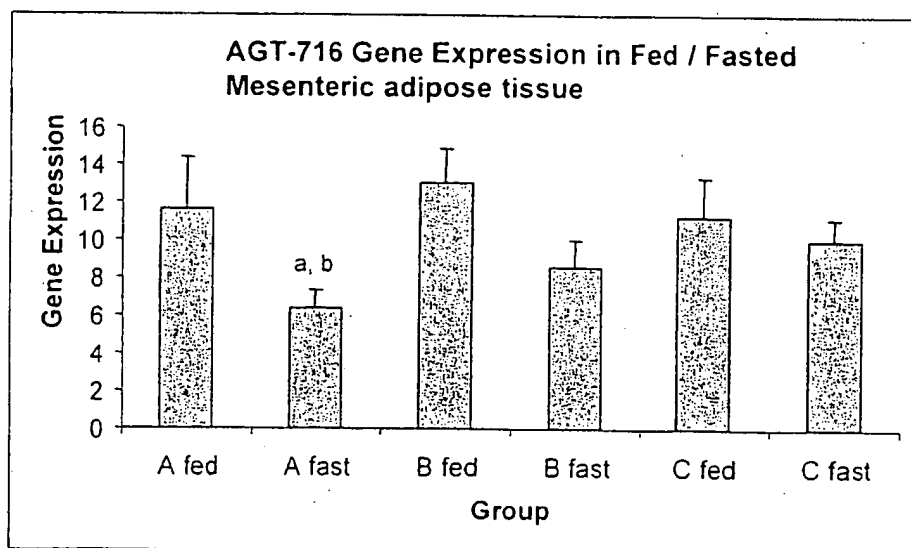


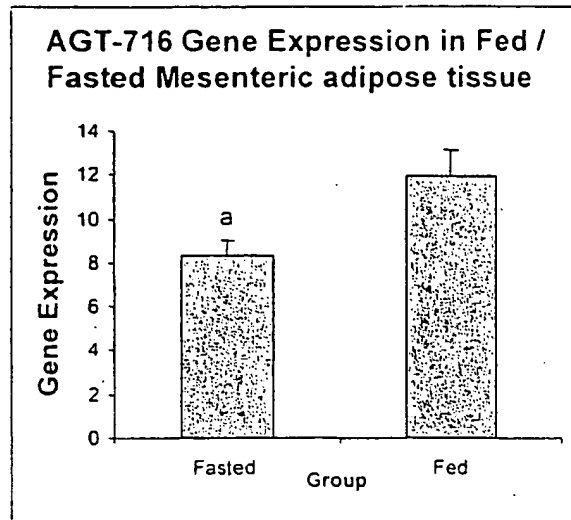
Figure 28:



a: Gene expression (mesenteric adipose tissue) significantly lower in A fasted animals when compared to A fed ( $p=0.041$ ).

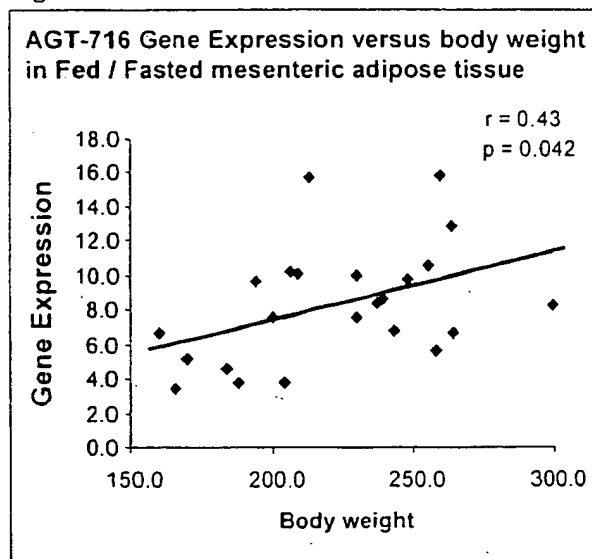
b: Gene expression (mesenteric adipose tissue) significantly lower in A fasted animals when compared to C fasted ( $p=0.033$ ) animals.

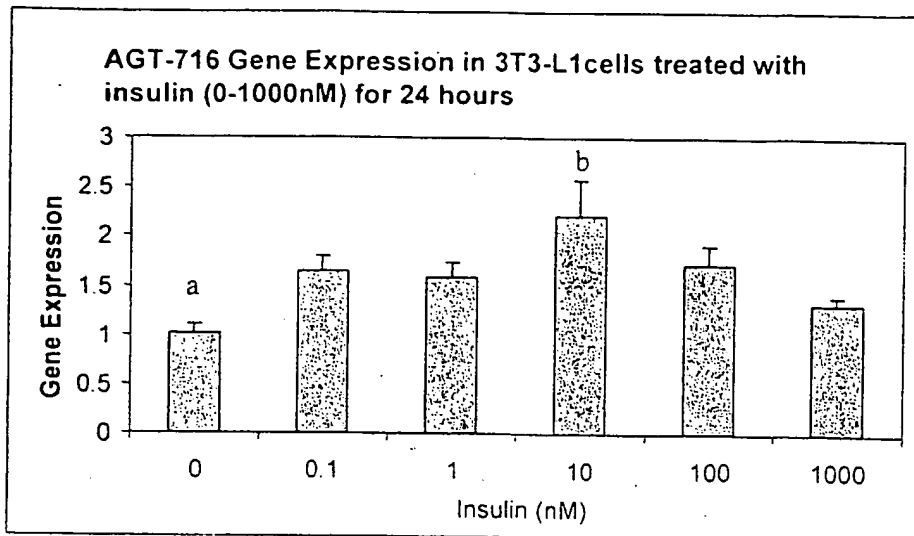
Figure 29:



a: Gene expression (mesenteric adipose tissue) significantly lower in fasted animals when compared to fed animals ( $p=0.014$ ).

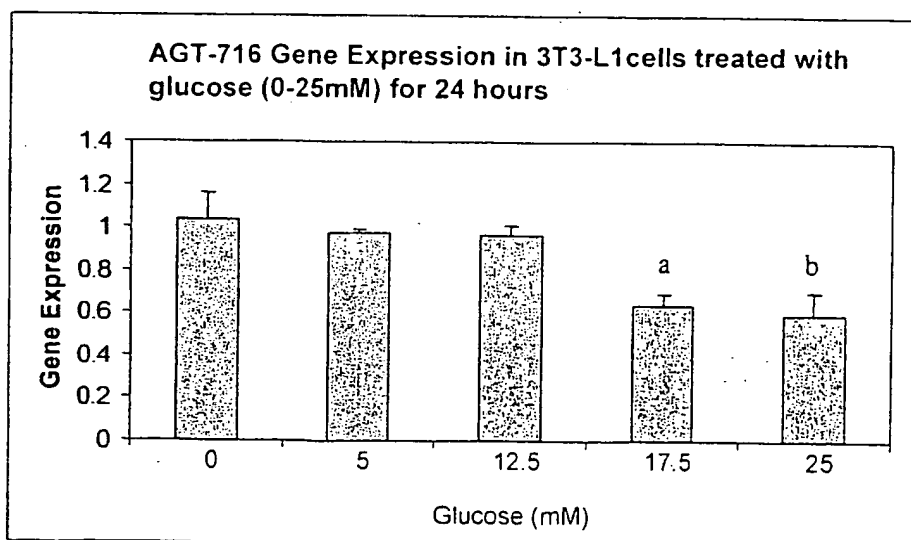
Figure 30:



**Figure 31:**

a: Gene expression (3T3-L1 cells) significantly lower in 0nM insulin treated cells when compared to 0.1nM ( $p=0.028$ ), 1nM ( $p=0.046$ ), 10nM ( $p<0.001$ ) and 100nM ( $p=0.017$ ) insulin treated groups.

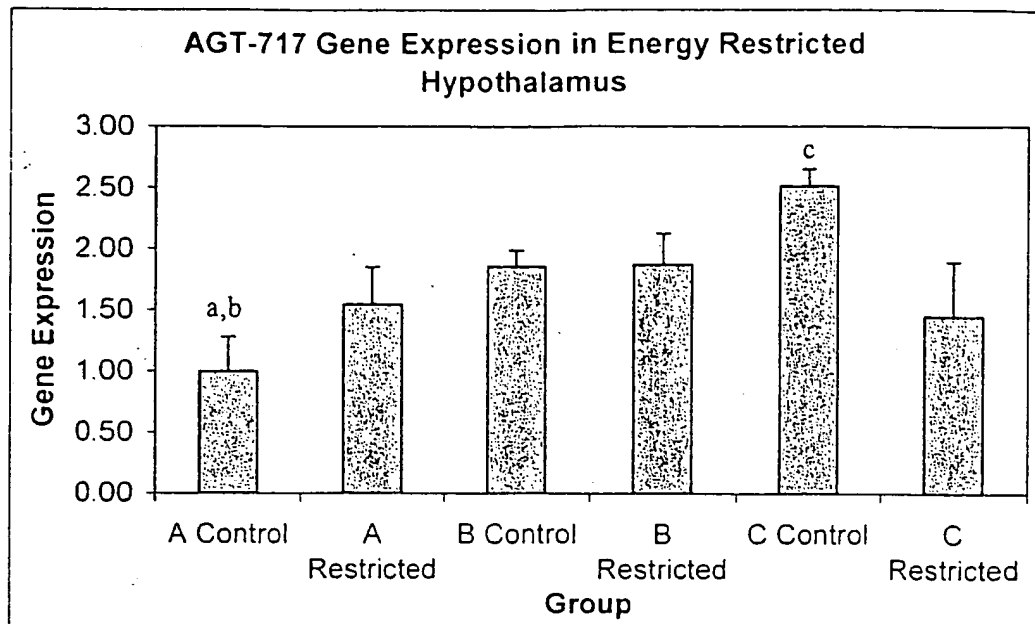
b: Gene expression (3T3-L1 cells) significantly higher in 10nM insulin treated cells when compared to 0nM ( $p<0.001$ ), 0.1nM ( $p=0.046$ ), 1nM ( $p=0.028$ ), 1000nM and ( $p=0.003$ ) insulin treated groups.

**Figure 32:**

a: Gene expression (3T3-L1 cells) significantly lower in 17.5mM glucose treated cells when compared to 0mM ( $p=0.011$ ), 5mM ( $p=0.01$ ) and 12.5mM ( $p=0.011$ ) glucose treated groups.

b: Gene expression (3T3-L1 cells) significantly lower in 25mM glucose treated cells when compared to 0mM ( $p=0.025$ ) and 5mM ( $p=0.05$ ) glucose treated groups.

Figure 33:



a,b: Gene expression was significantly lower in A control animals compared to B control ( $p=0.027$ ) and C control ( $p<0.001$ ) animals.

c:  $p=0.009$ , gene expression was significantly higher in C control compared to C restricted animals.

Figure 34:

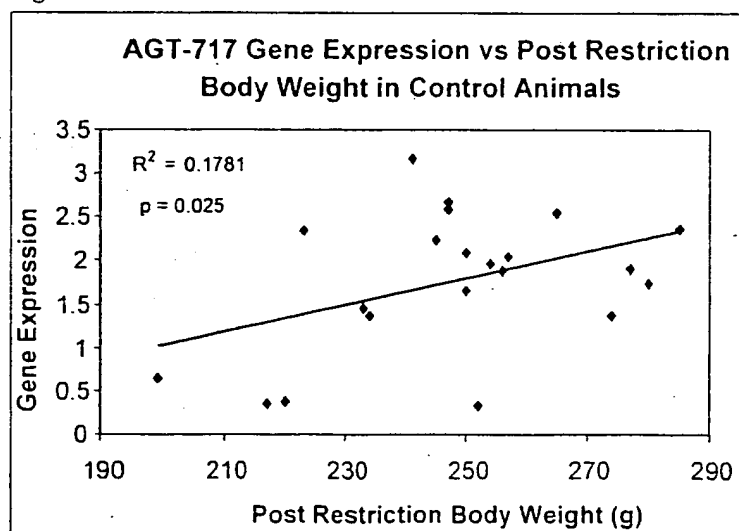


Figure 35:

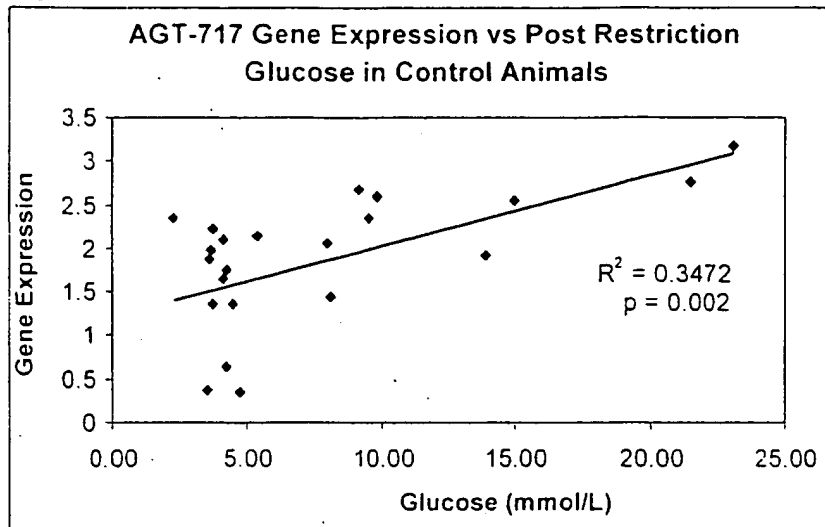


Figure 36:

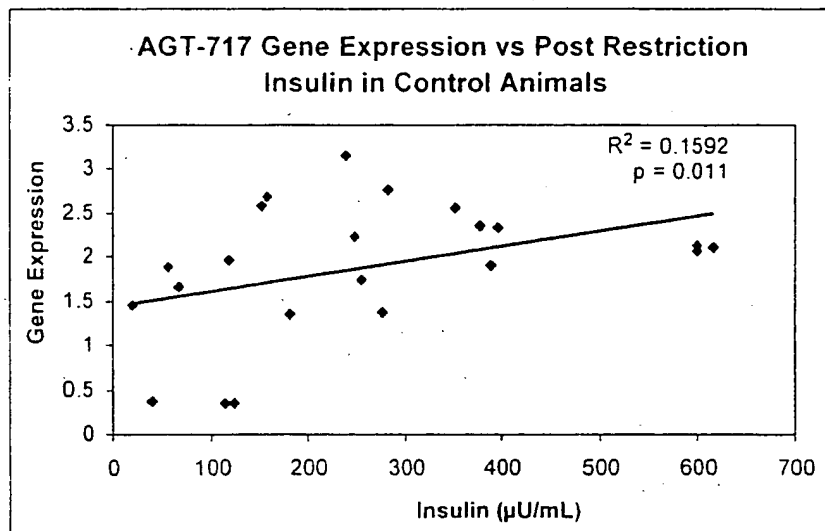


Figure 37:

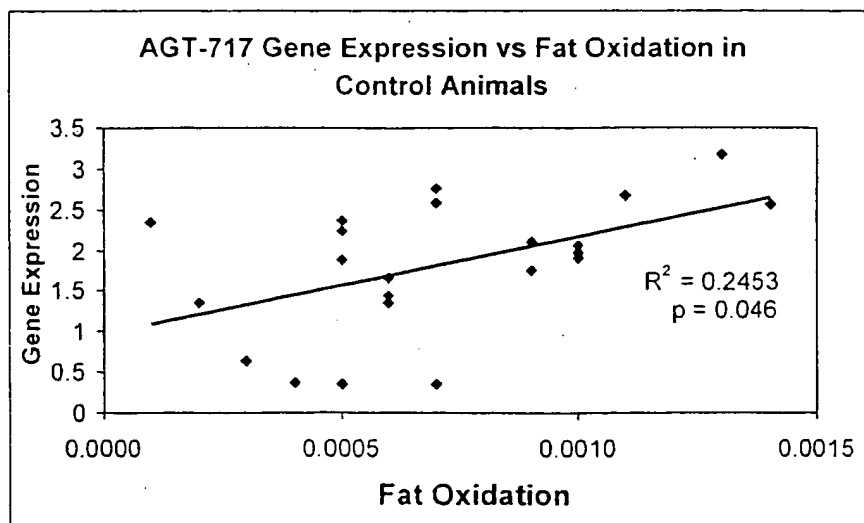
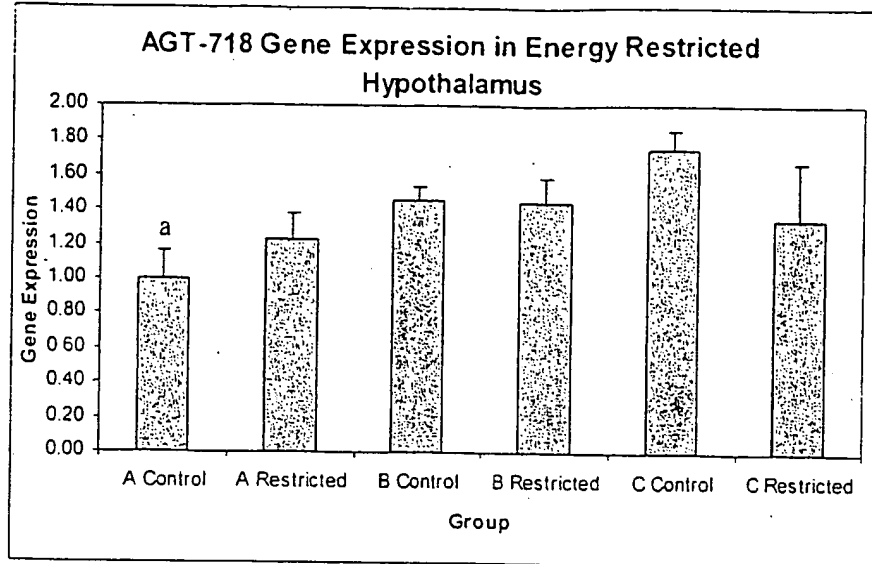


Figure 38:



a:  $p=0.023$ , A control < C control

Figure 39:

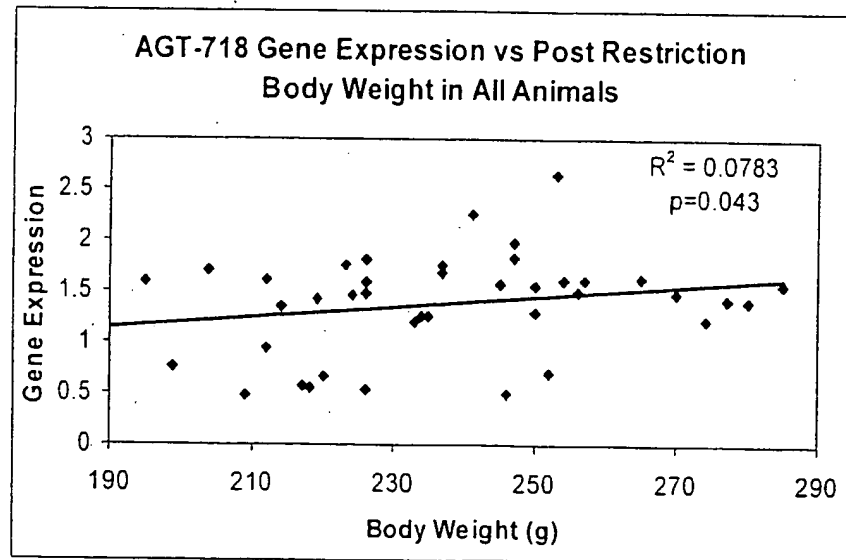


Figure 40:

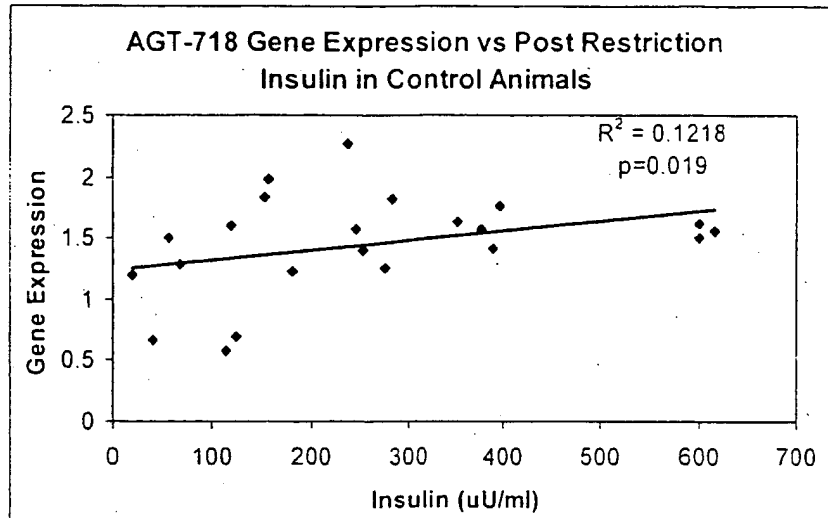


Figure 41:

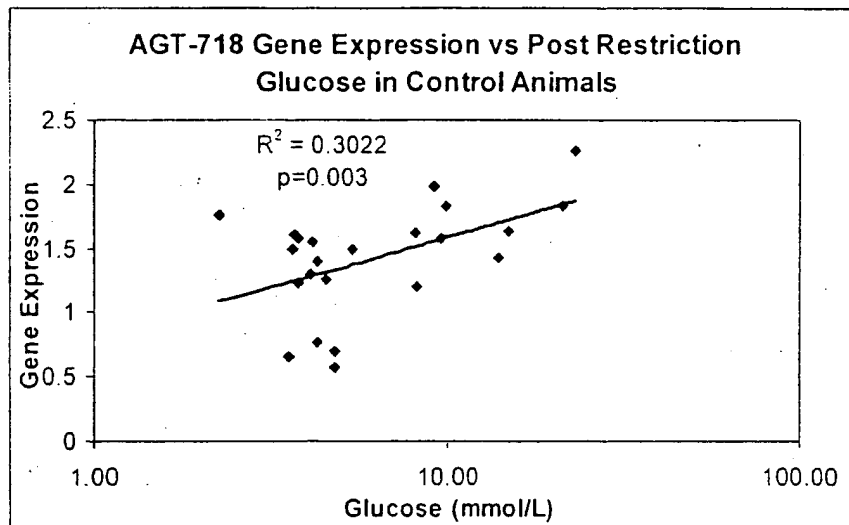


Figure 42:

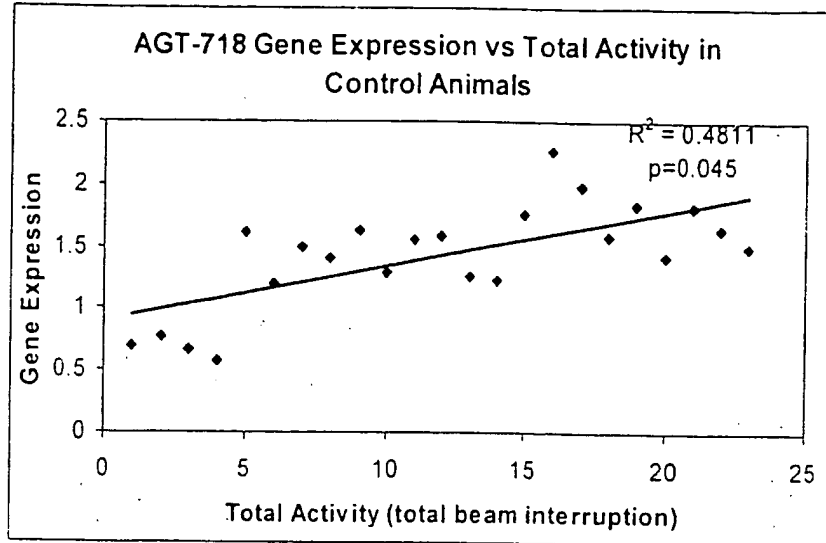


Figure 43:

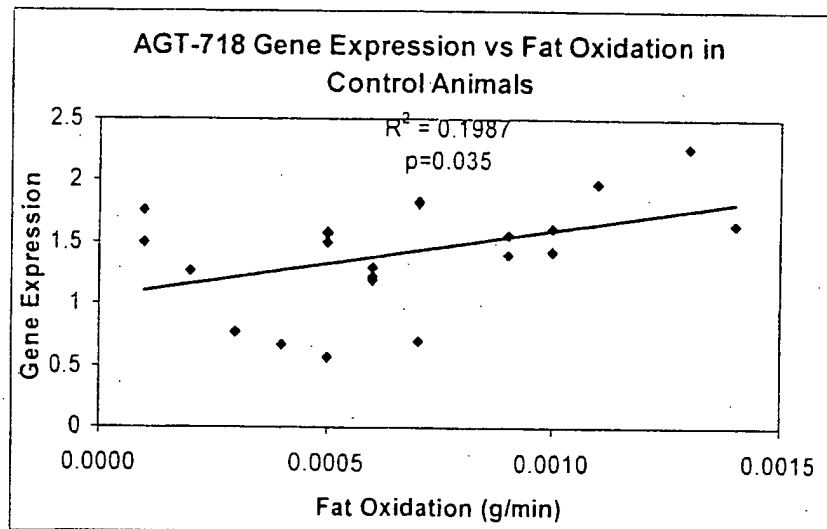


Figure 44:

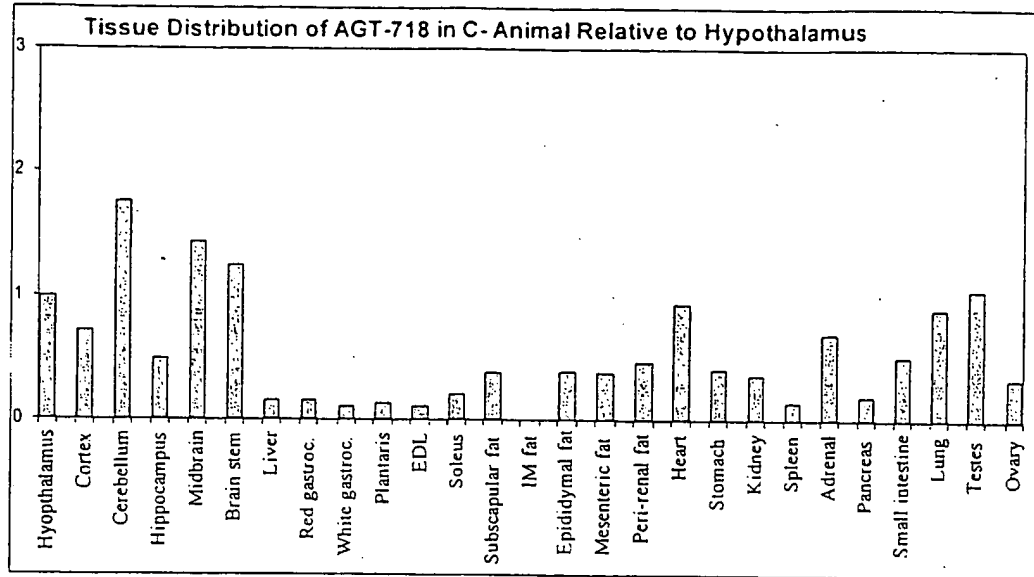
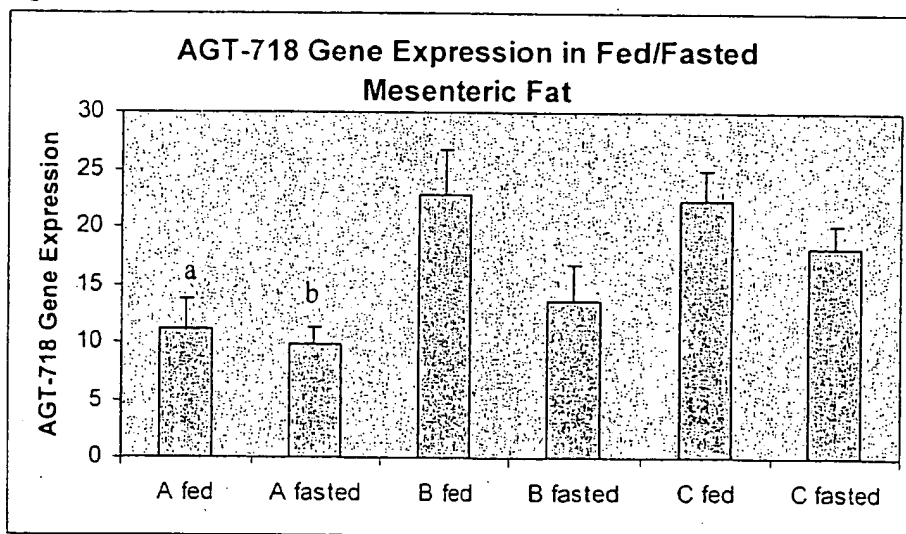


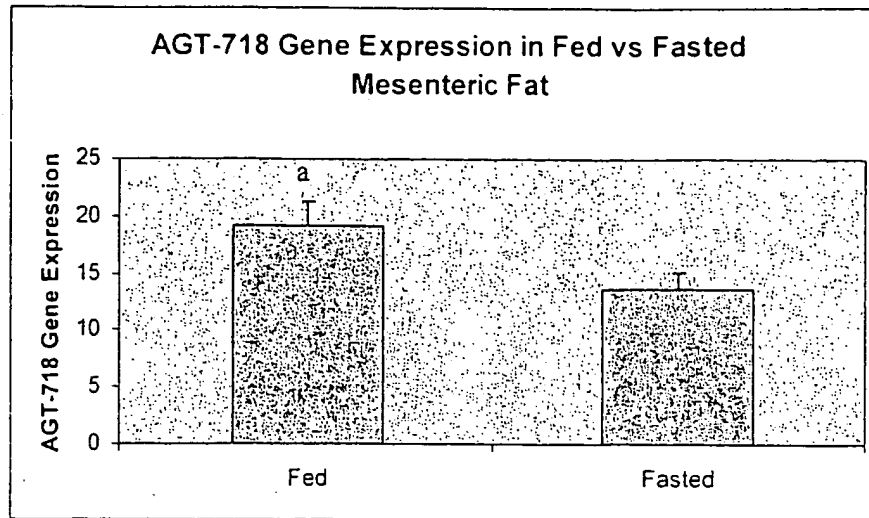
Figure 45:



a: A fed < B fed, C fed ( $p=0.005, 0.007$ )

b: A fasted < C fasted ( $p=0.027$ )

Figure 46:



a: Fed>Fasted ( $p=0.038$ )

Figure 47:

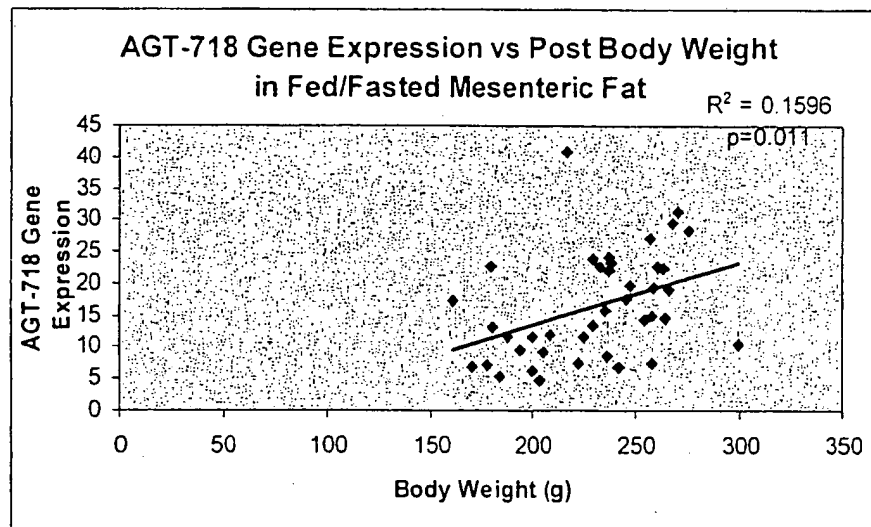


Figure 48:

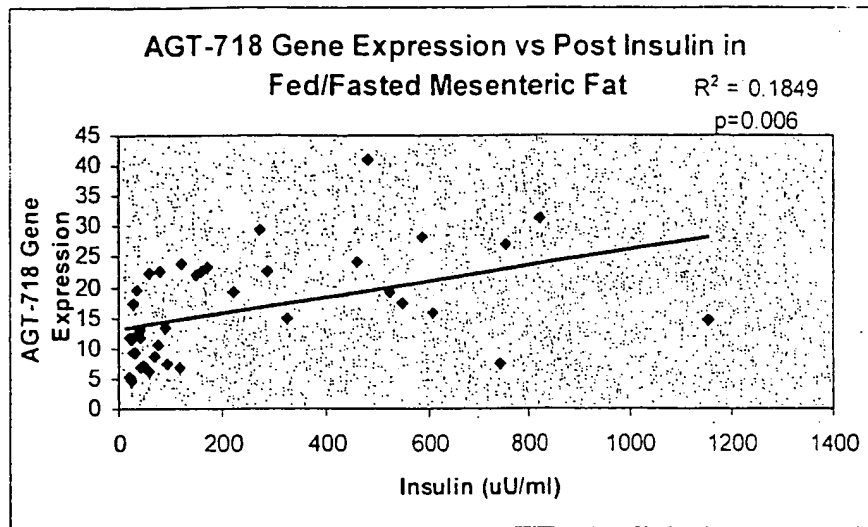


Figure 49:

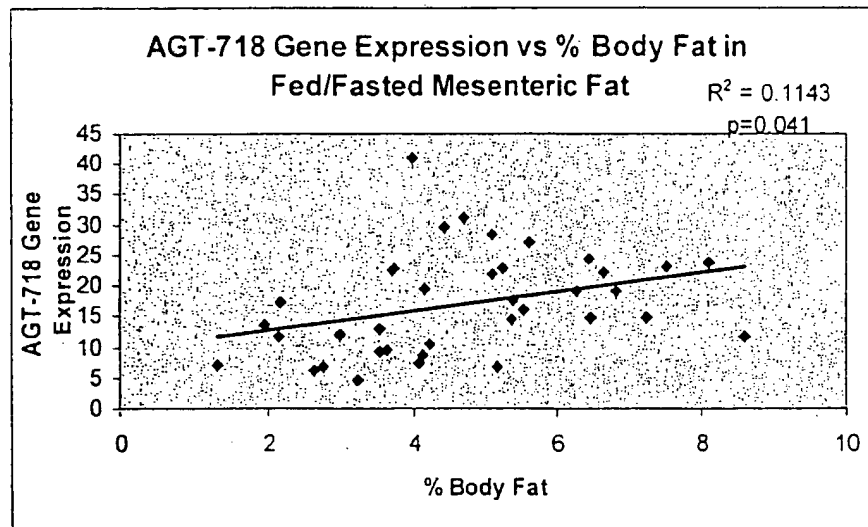
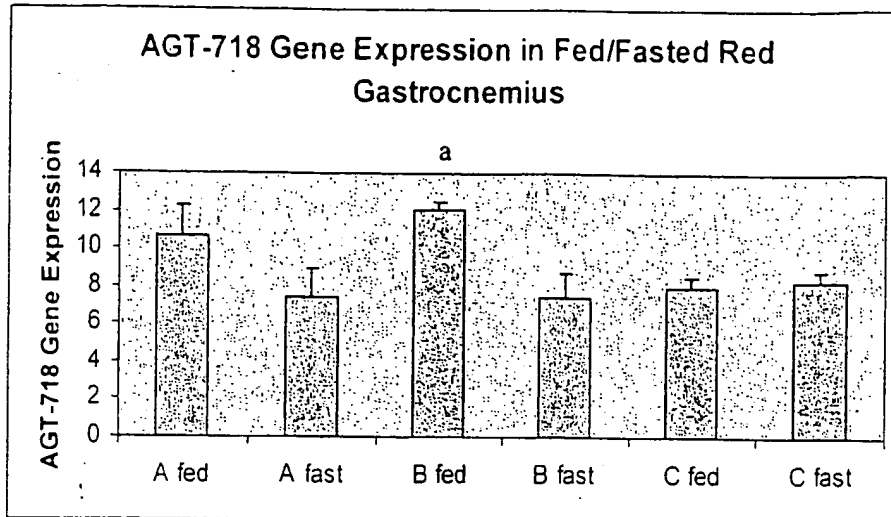
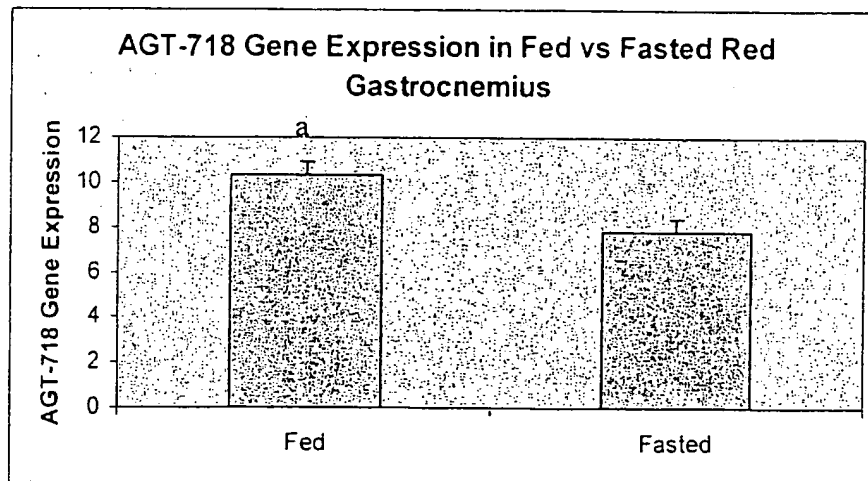


Figure 50:



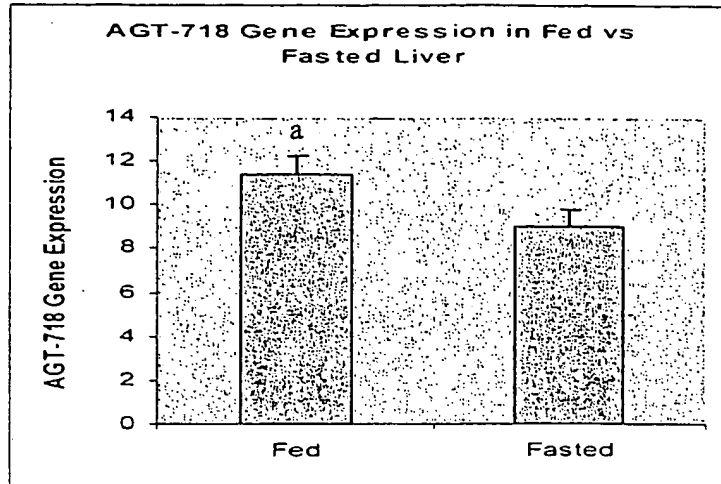
a: B fed > C fed ( $p=0.001$ )

Figure 41:



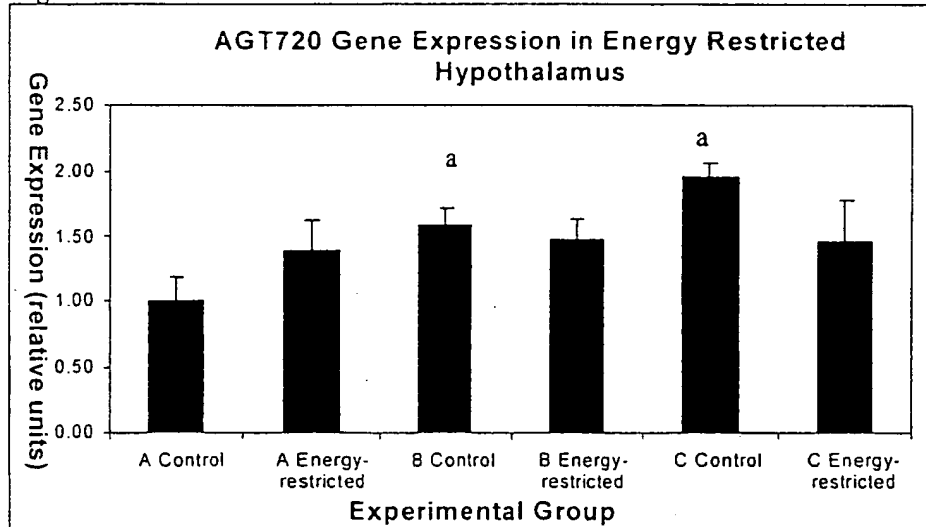
a: Fed > Fasted ( $p=0.007$ )

Figure 52:



a: Fed > Fasted ( $p=0.047$ )

Figure 53:



a:  $p < 0.05$ , significant increase in the hypothalamus of B and C control groups, when compared with the A control group.

Figure 54:

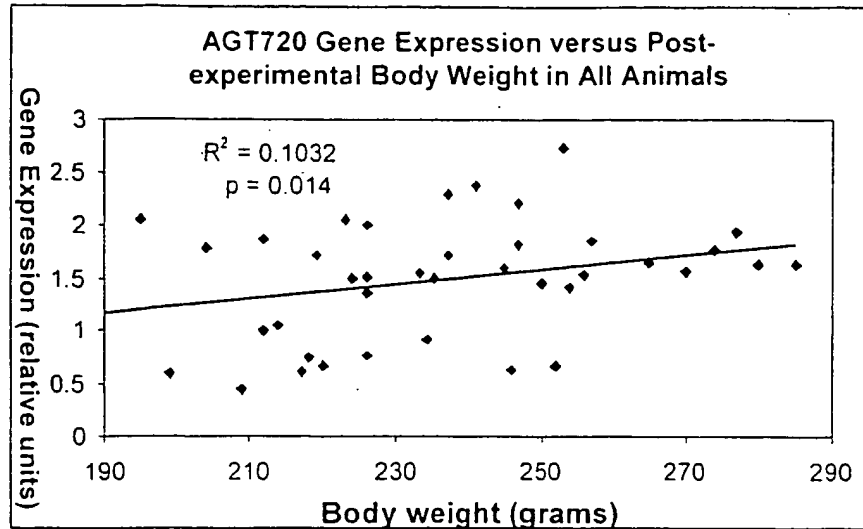


Figure 55:

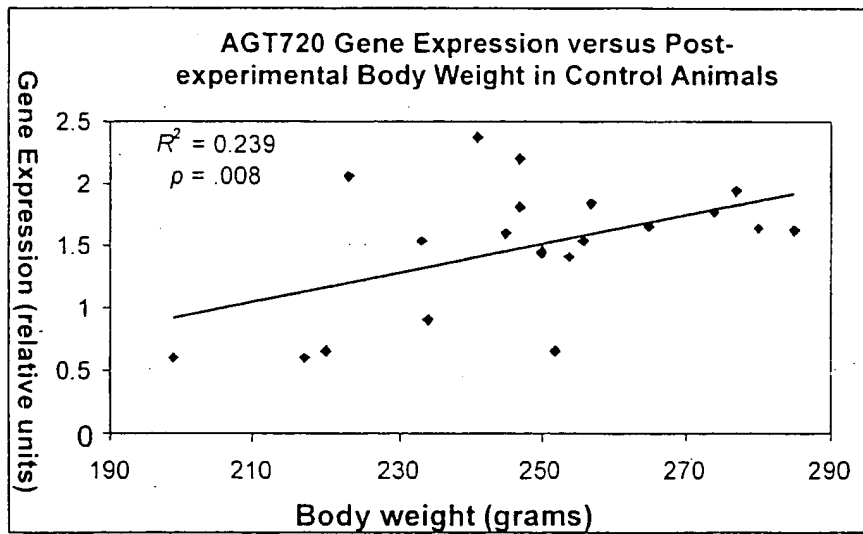


Figure 56:

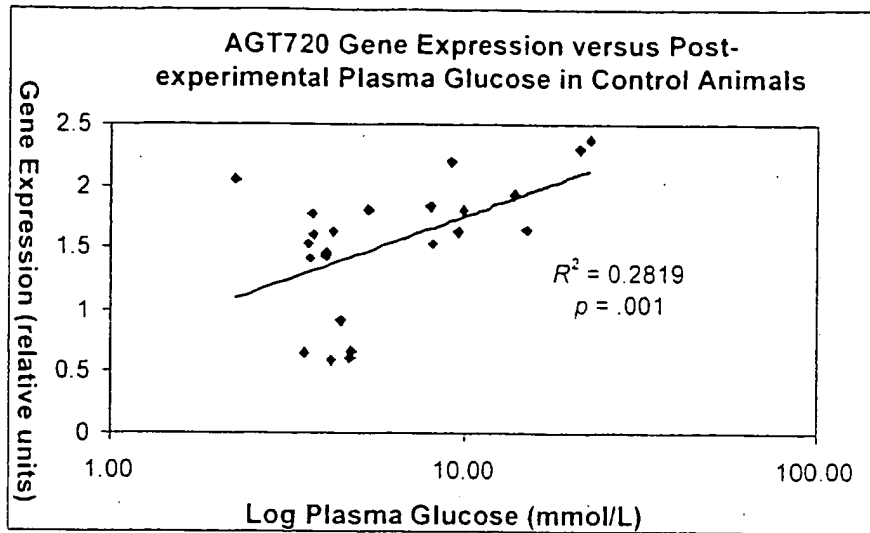


Figure 57:

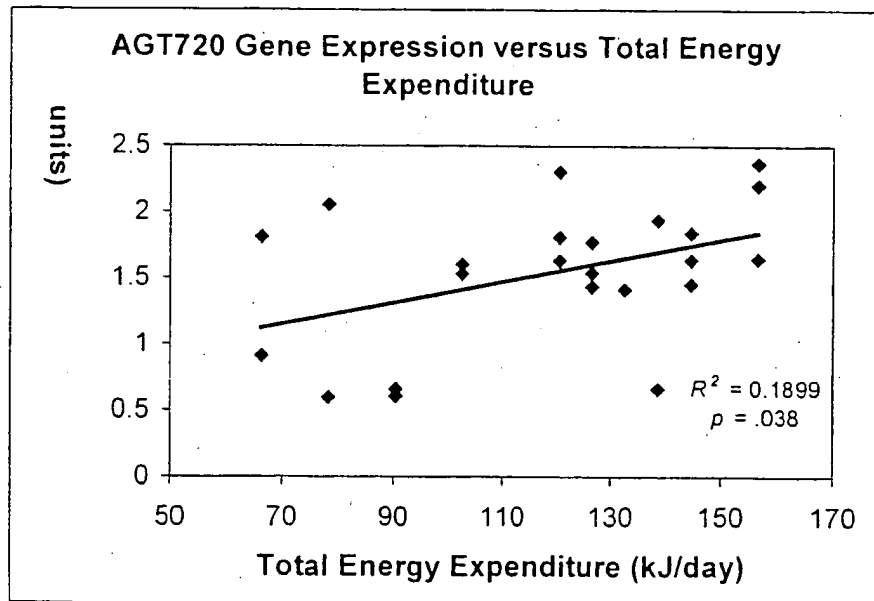
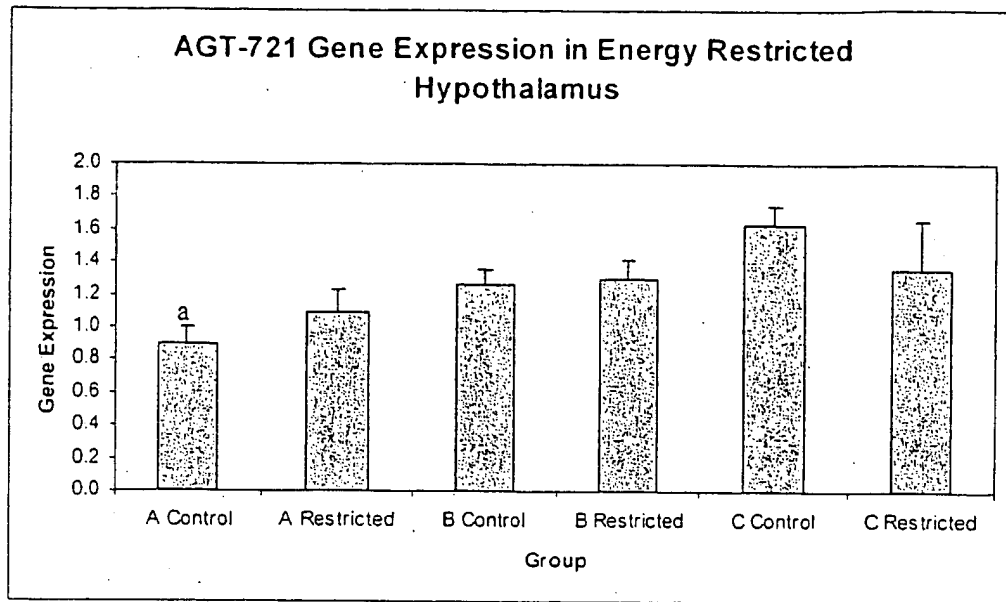


Figure 58:



a:  $p < 0.001$  vs C control

Figure 59:

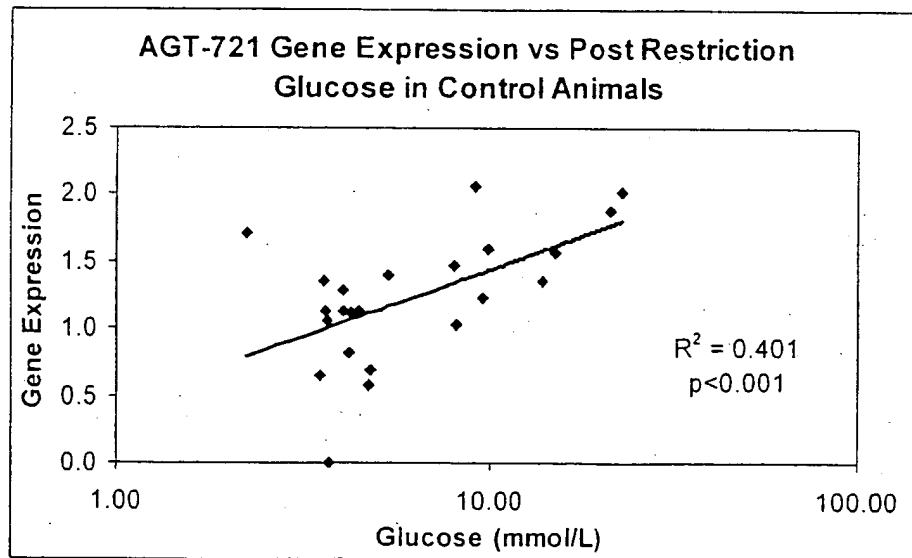


Figure 60:

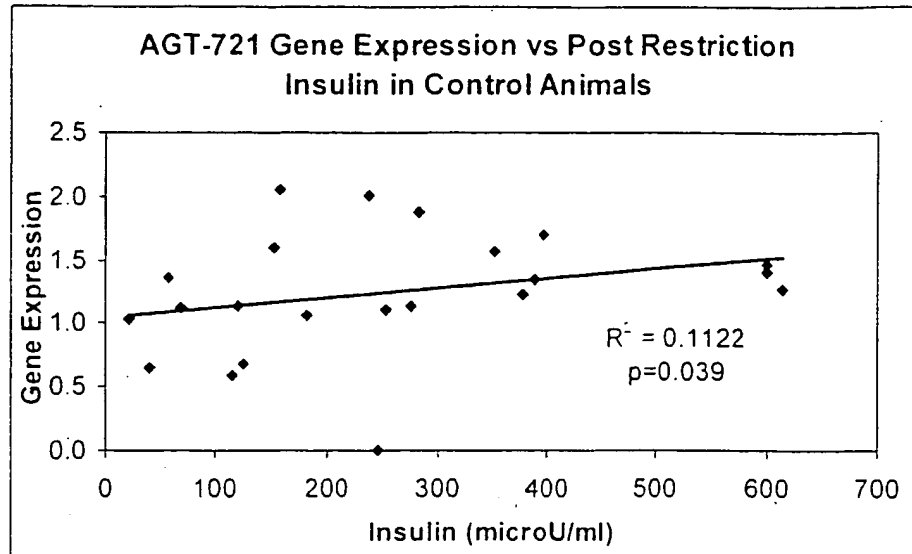
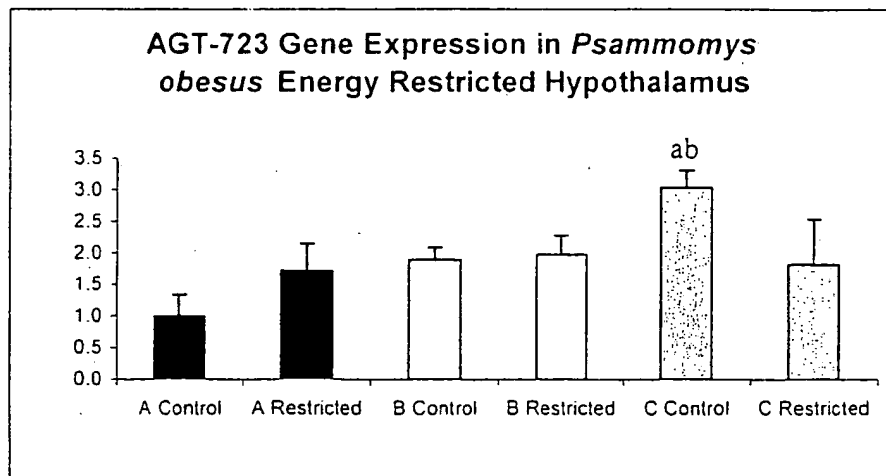


Figure 61:



a: AGT-723 gene expression significantly higher ( $p=0.005$ ) in C Control animals when compared to A Control.

b: AGT-723 gene expression significantly higher ( $p=0.042$ ) in C Control animals when compared to B Control.

Figure 62:

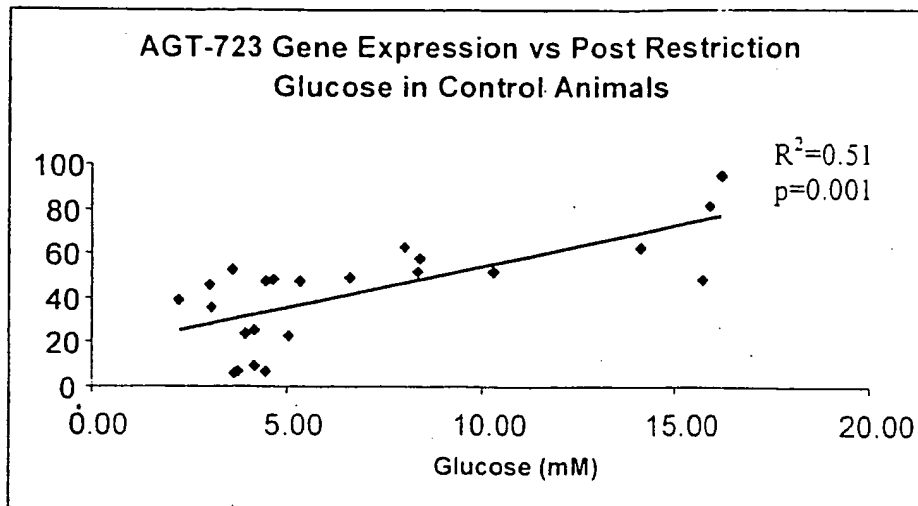


Figure 63:

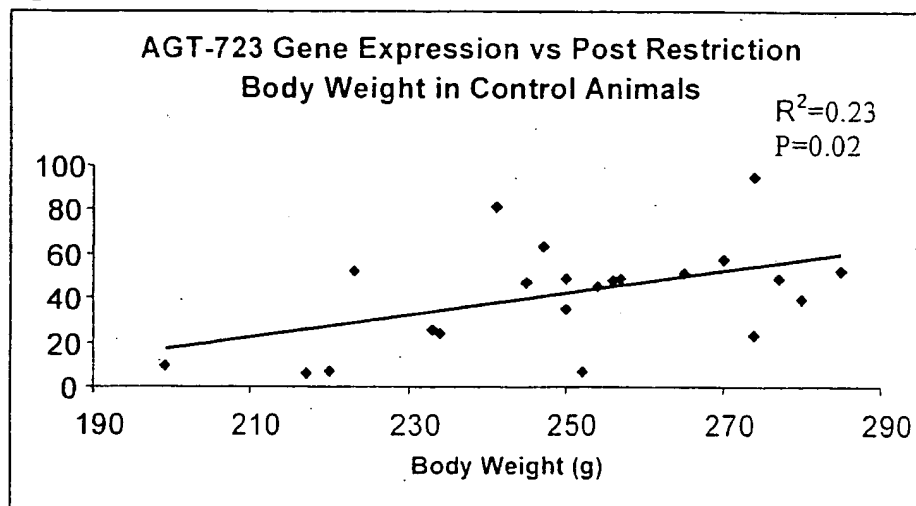


Figure 64:

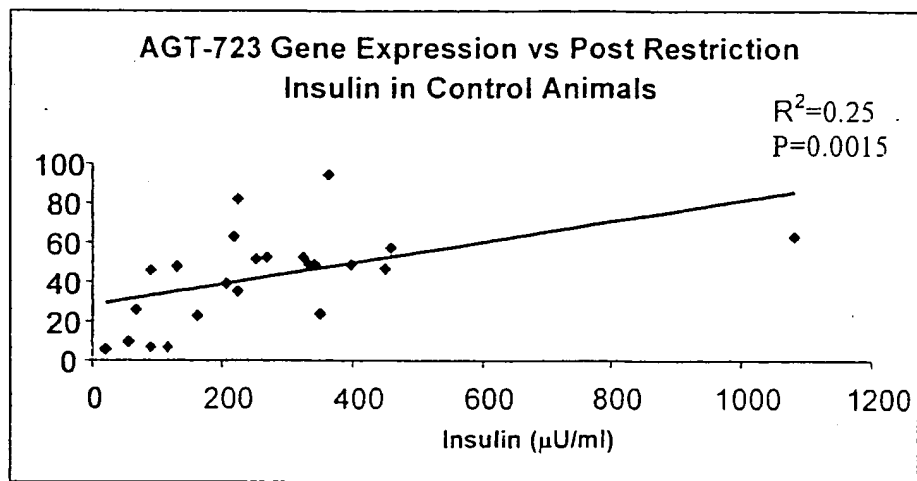


Figure 65:

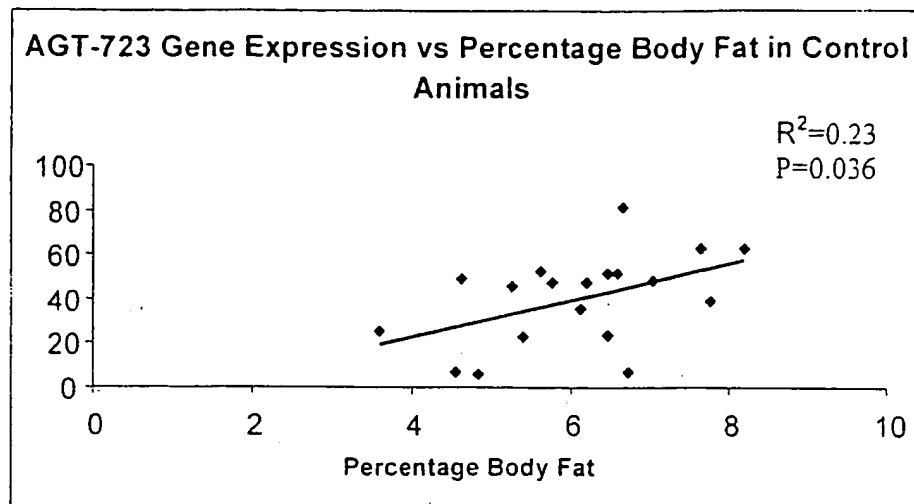


Figure 66:

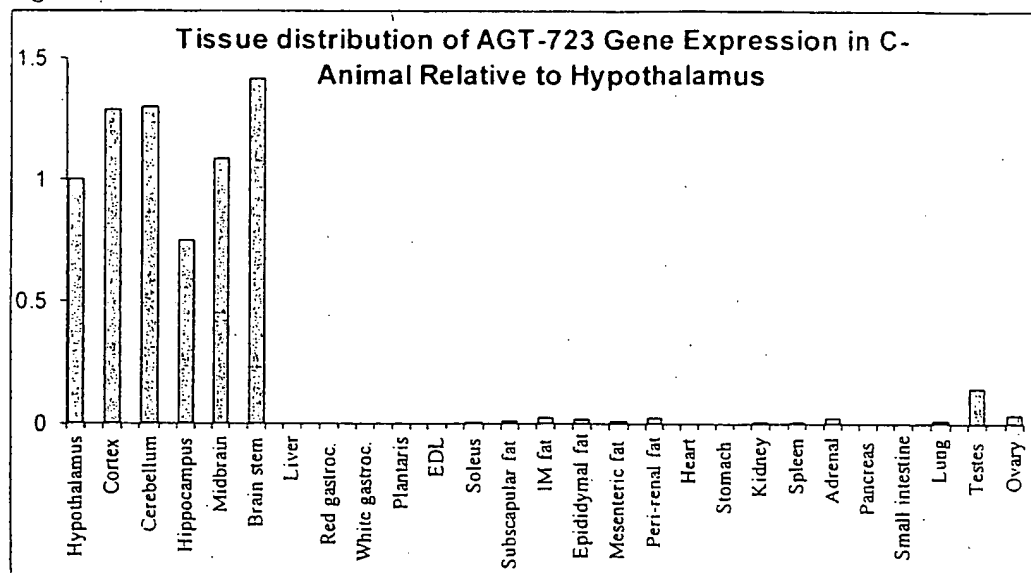
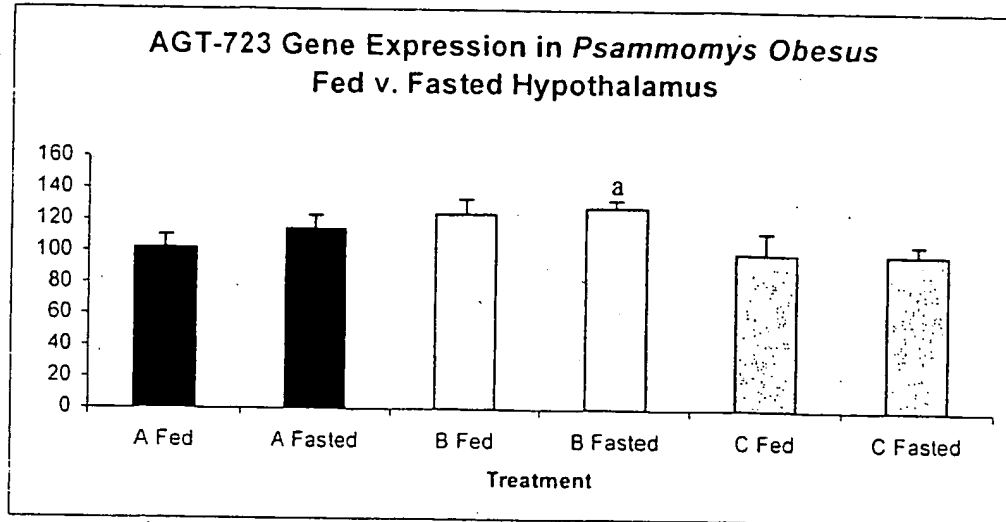


Figure 67:



a: Hypothalamic *Psammomys obesus* AGT-723 gene expression (fed/fasted study) significantly higher ( $p=0.032$ ) in B Fasted animals when compared to C Fasted animals.

Figure 68:

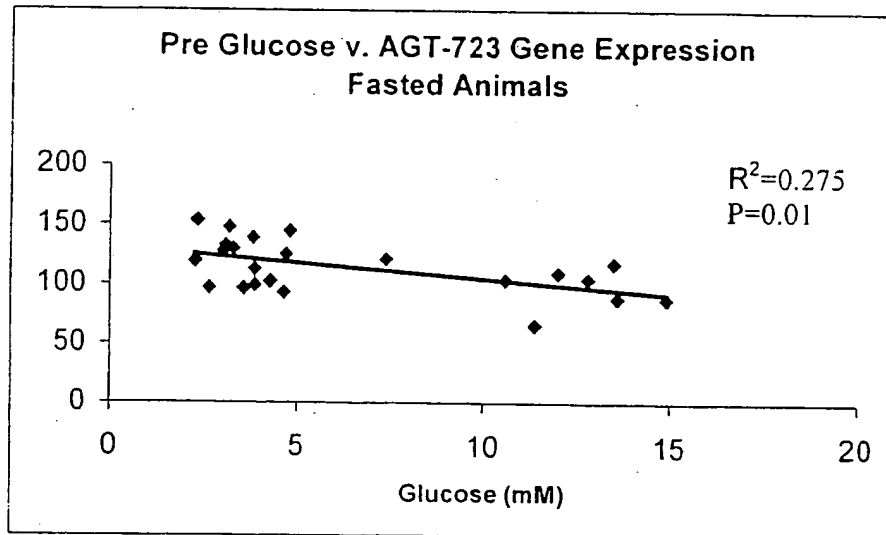
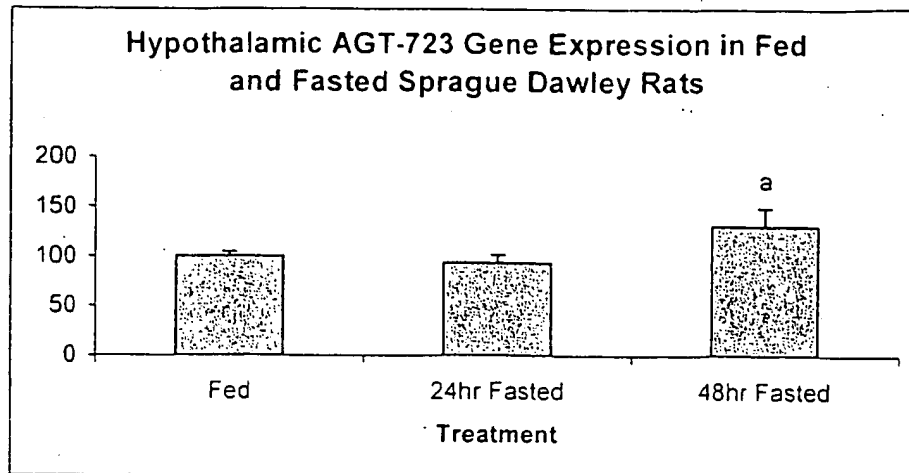
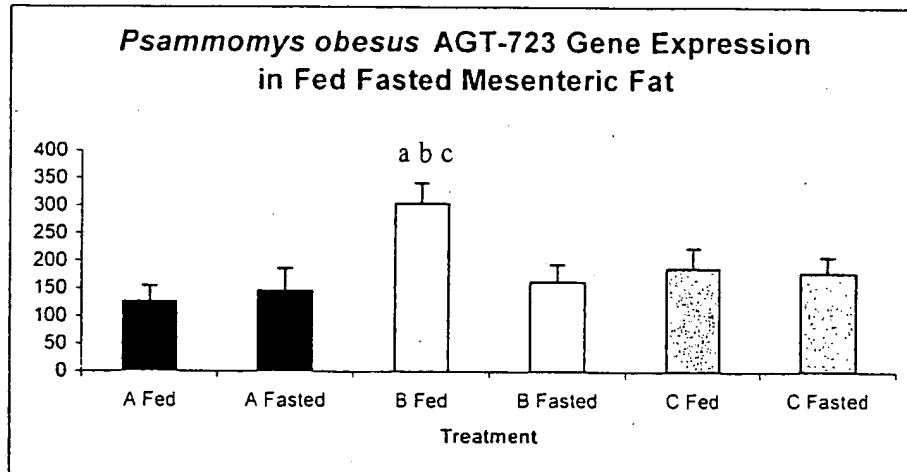


Figure 69:



a: Sprague Dawley rat hypothalamic AGT-723 gene expression (fed/fasted study) is significantly higher ( $p=0.043$ ) in 48hr fasted animals when compared to 24hr fasted animals

Figure 70:



a: Mesenteric fat *Psammomys obesus* AGT-723 gene expression (fed/fasted study) significantly higher ( $p=0.001$ ) in B Fed animals when compared to A Fed animals.  
 b: Mesenteric fat *Psammomys obesus* AGT-723 gene expression (fed/fasted study) significantly higher ( $p=0.005$ ) in B Fed animals when compared to B Fasted animals.  
 c: Mesenteric fat *Psammomys obesus* AGT-723 gene expression (fed/fasted study) significantly higher ( $p=0.022$ ) in B Fed animals when compared to C Fed animals.

Figure 71:

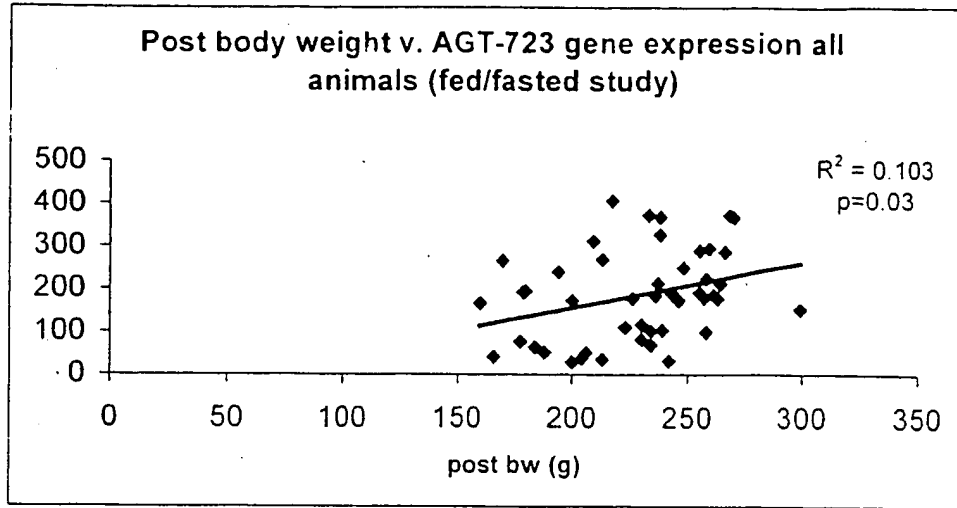


Figure 72:

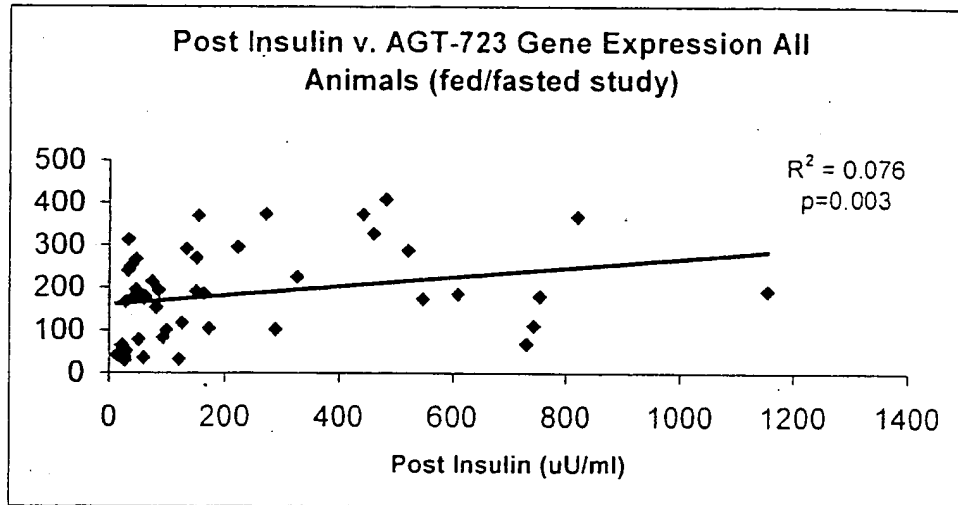
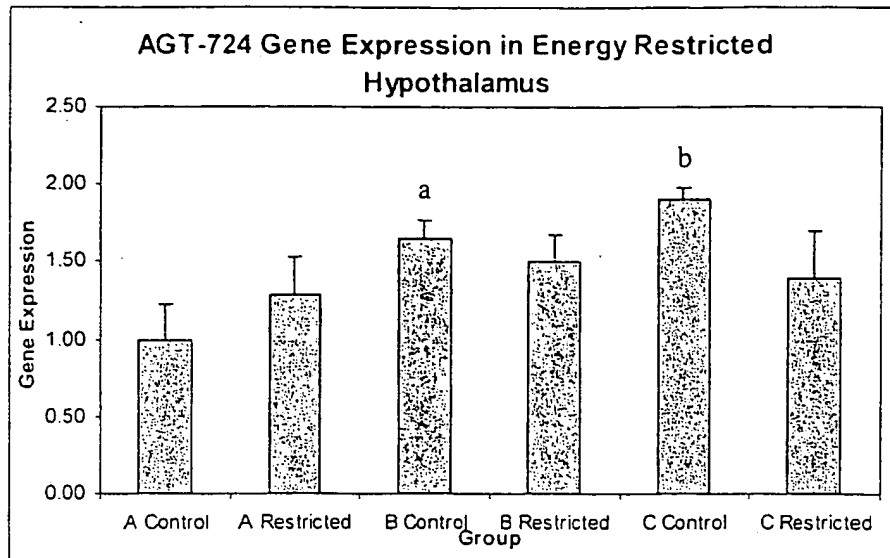


Figure 73:



a,b: Gene expression was significantly lower in A controls when compared to B controls ( $p=0.033$ ) and C controls ( $p=0.004$ )

Figure 74:

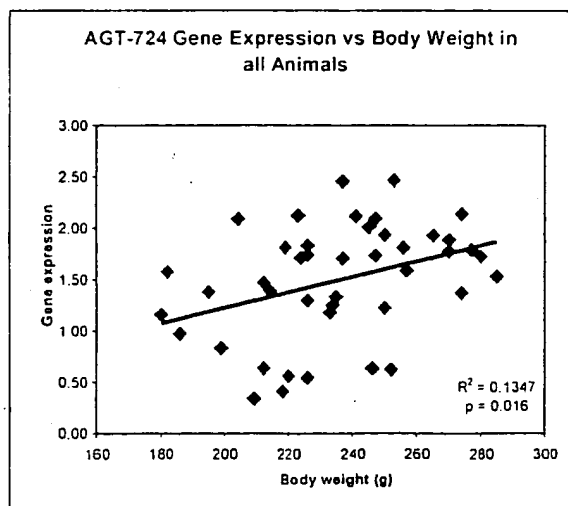


Figure 75:

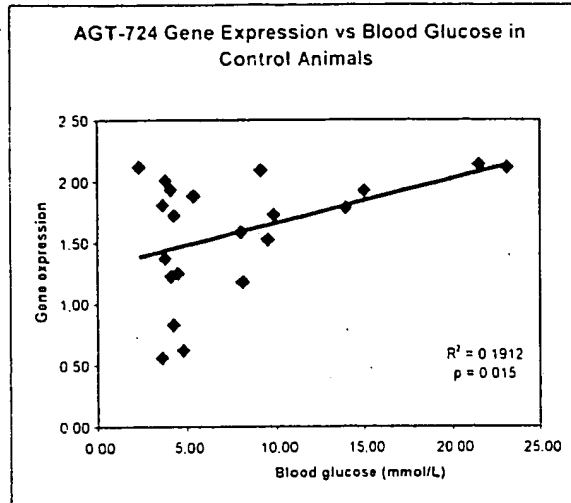
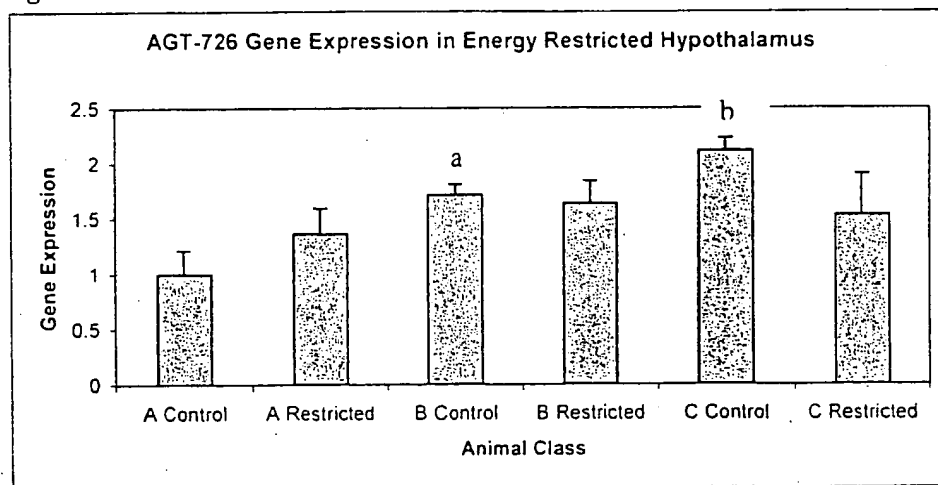


Figure 76:



a:p=0.024 compared to A control

b:p=0.001 compared to A control

Figure 77:

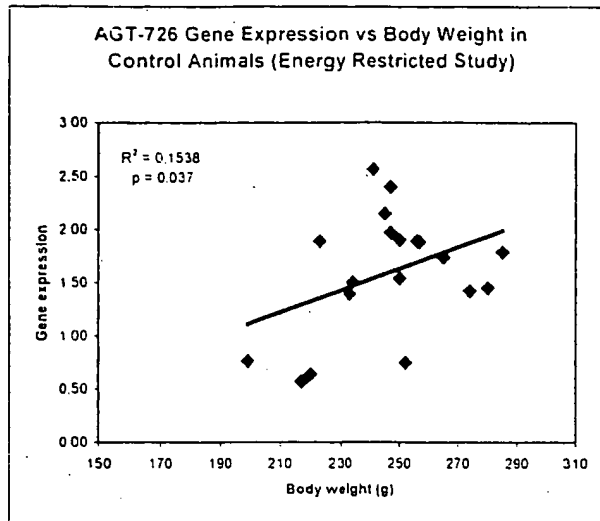


Figure 78:

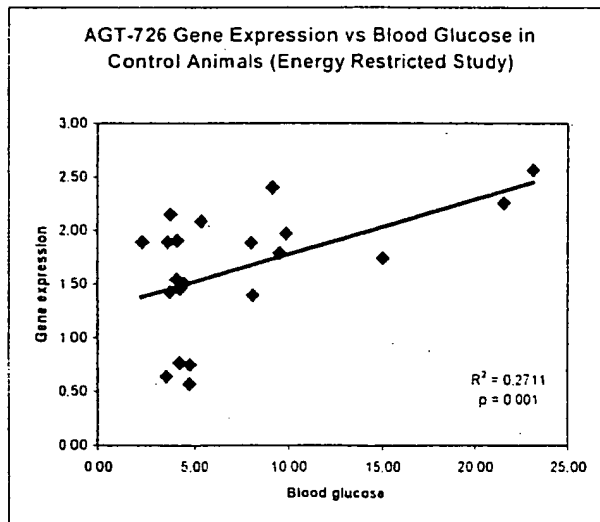


Figure 79:

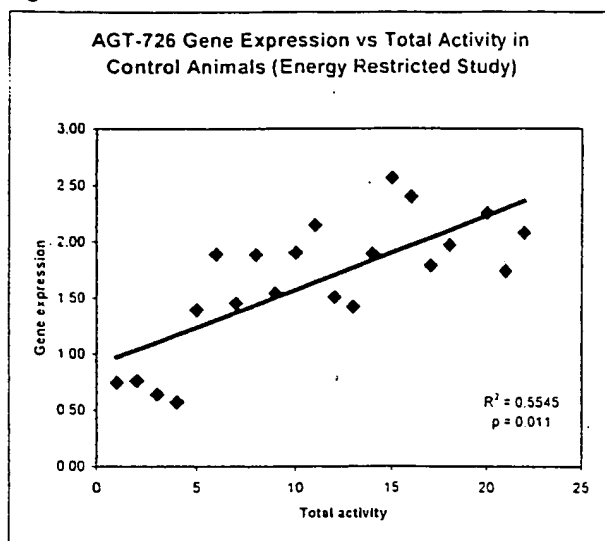


Figure 80:

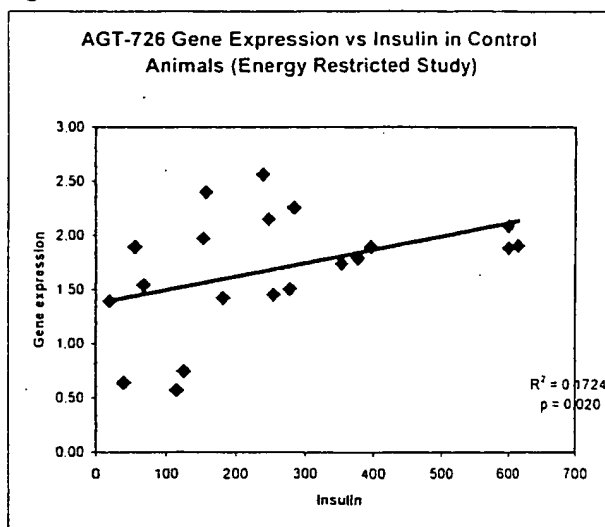


Figure 81:

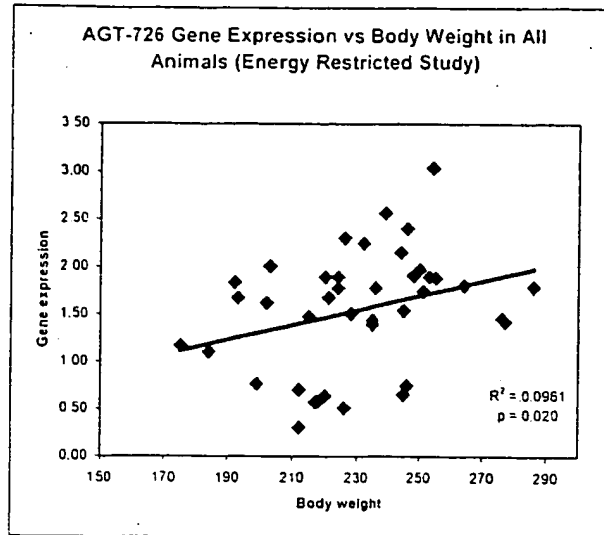


Figure 82:

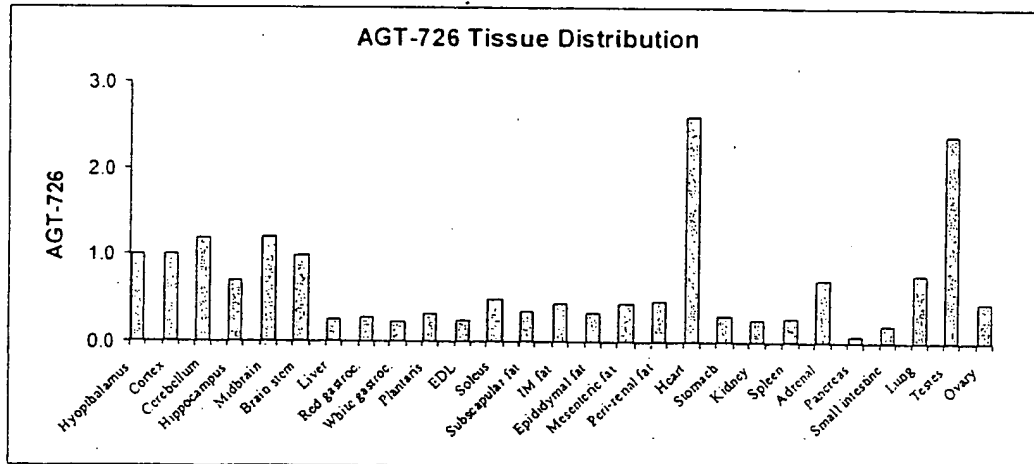
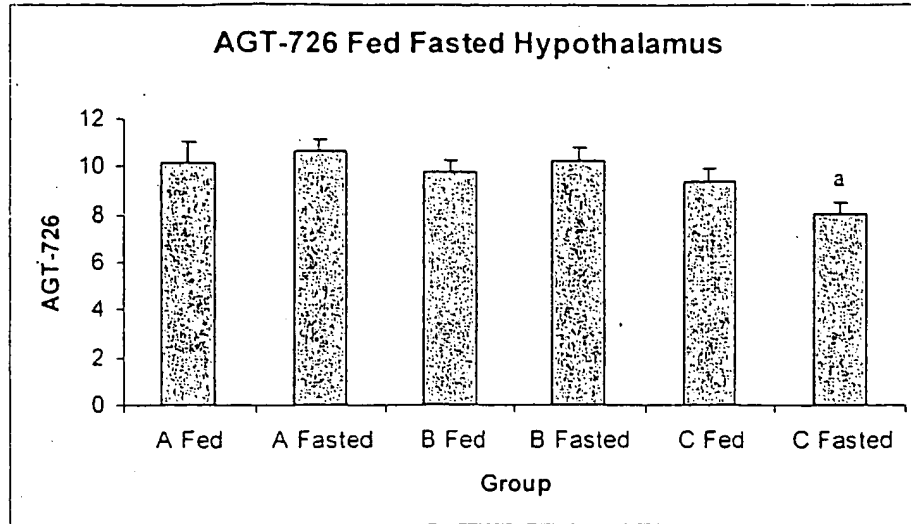
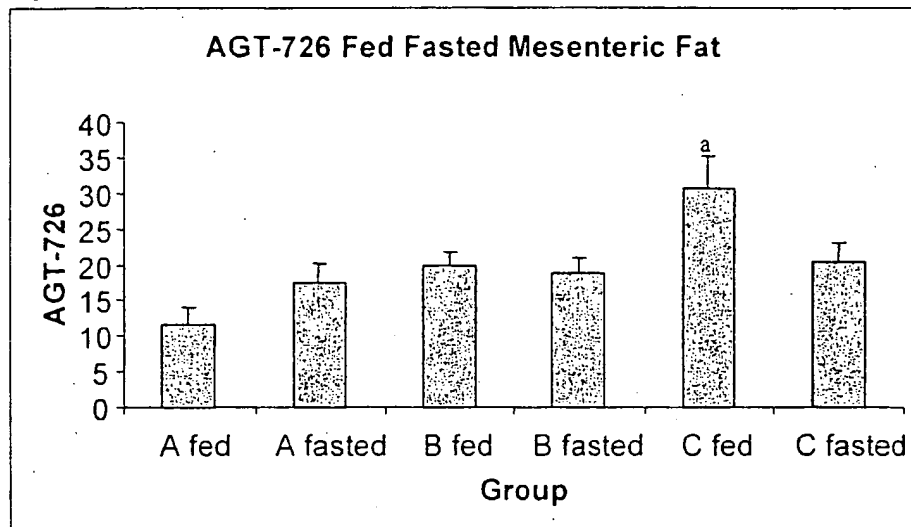


Figure 83:



a:  $p=0.003$  compared to A fasted;  $p=0.013$  compared to B fasted.

Figure 84:



a:  $p<0.013$  compared to A fed, B fed and C fasted animals.

Figure 85:

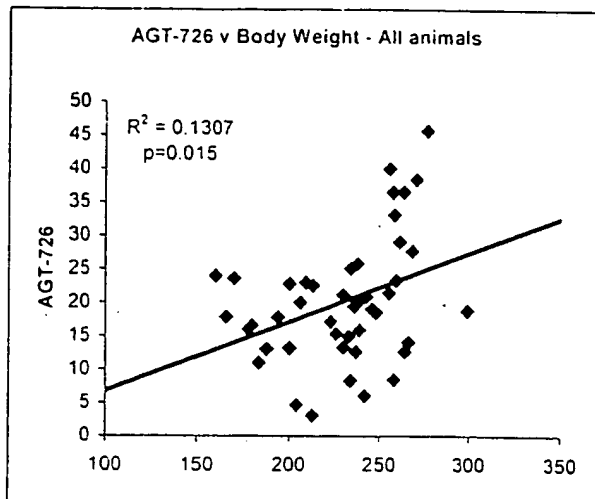


Figure 86:

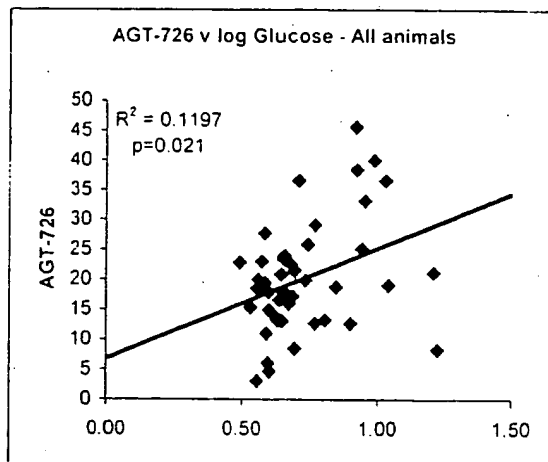


Figure 87:

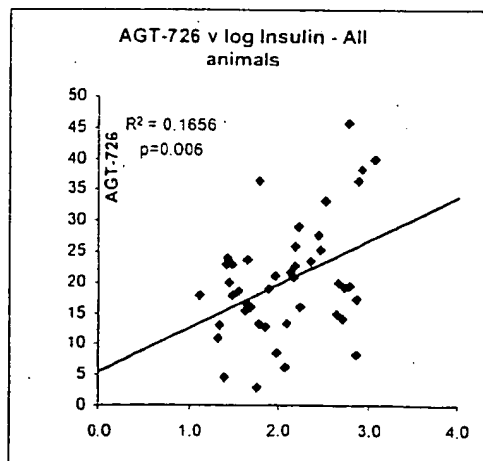
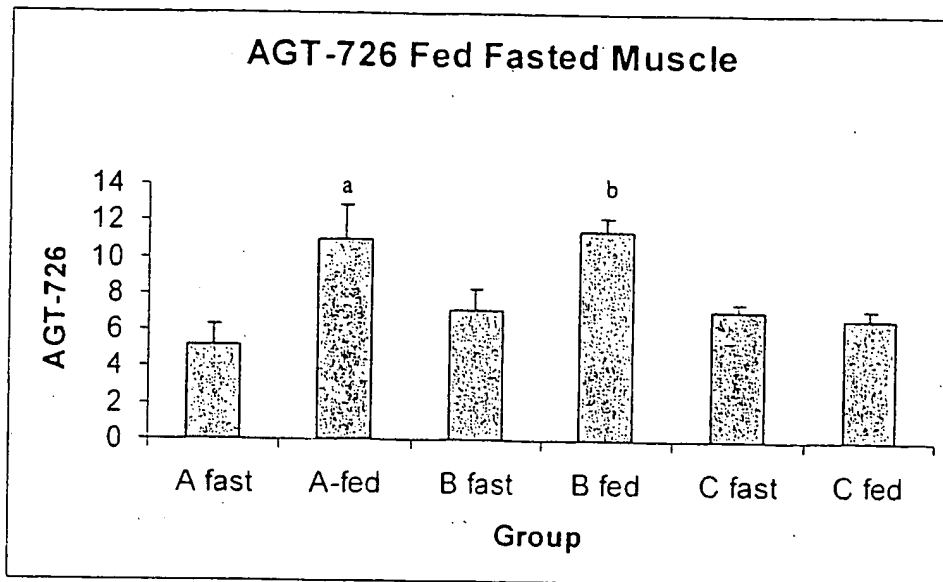


Figure 88:



a:  $p=0.018$  (A fed) compared to C fed.

b:  $p=0.002$  (B fed) compared to C fed.

Figure 89:

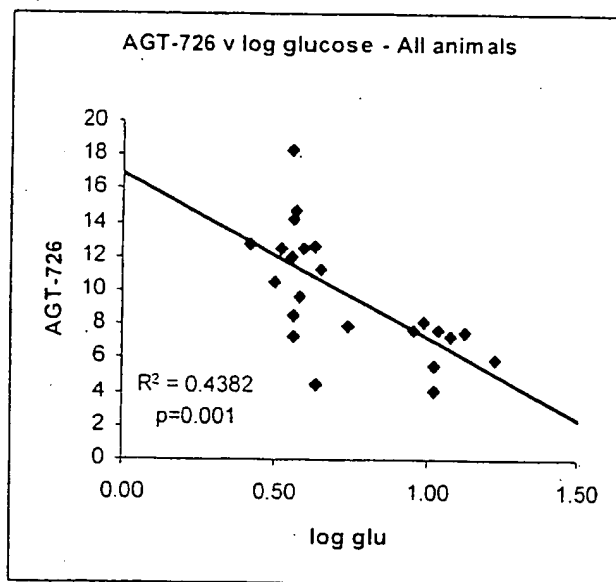
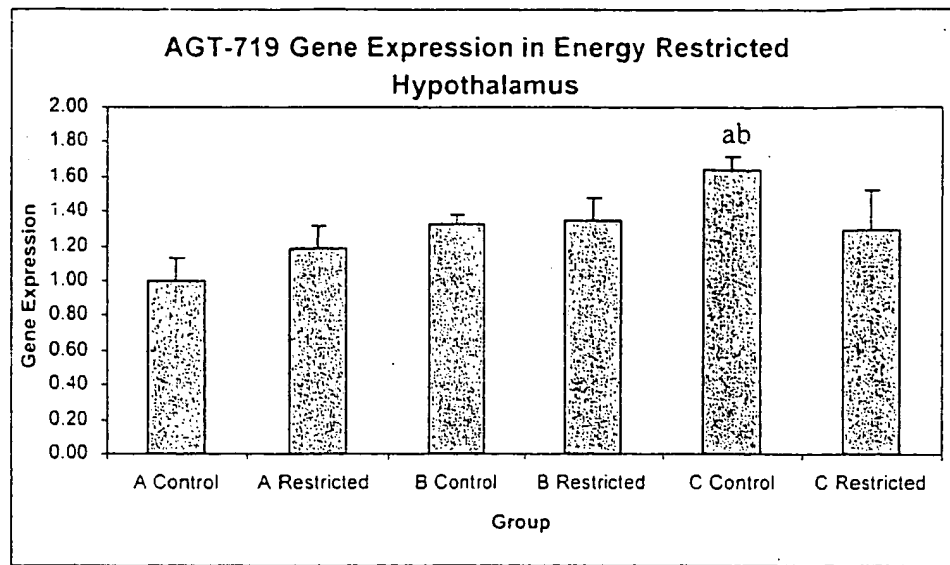


Figure 90:



a:  $p=0.022$ , A control < C control

b:  $p=0.040$ , B control < C control

Figure 91:

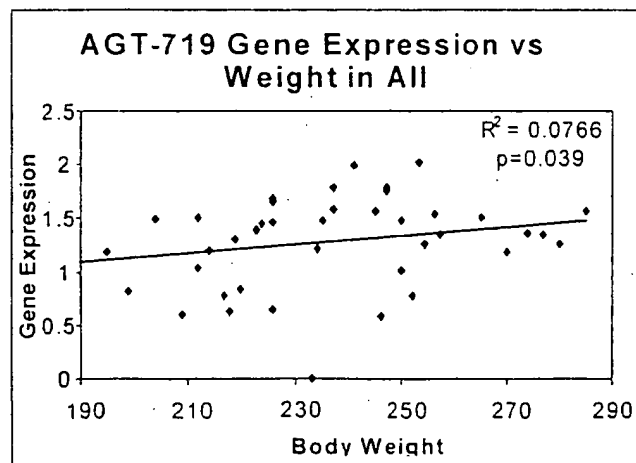


Figure 92:

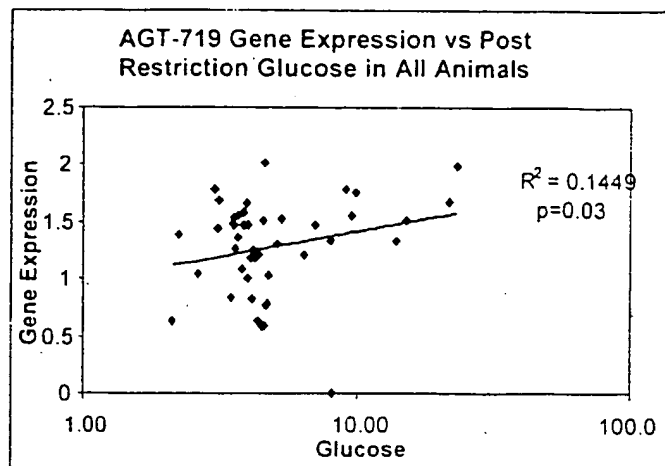


Figure 93:

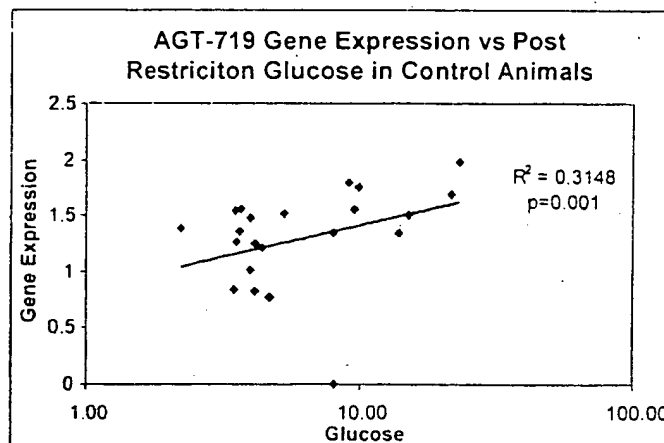


Figure 94:

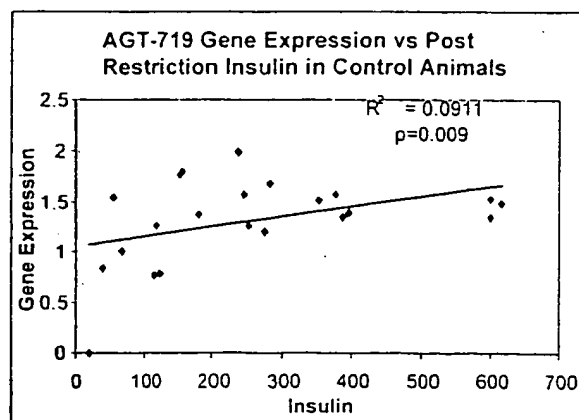


Figure 95:

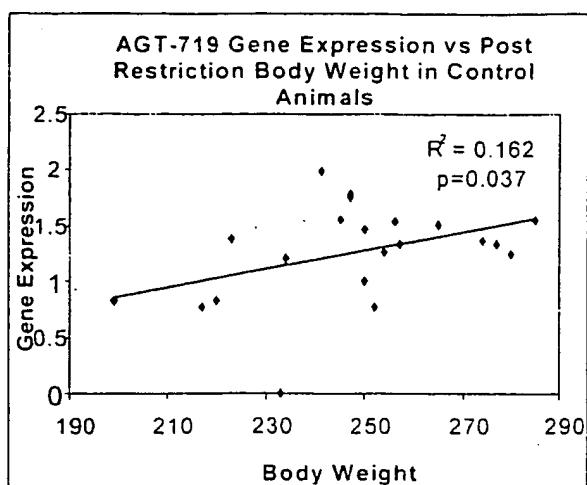


Figure 96:

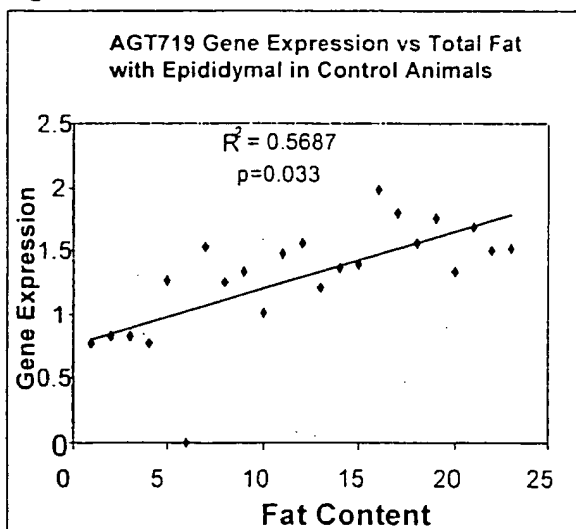


Figure 97:

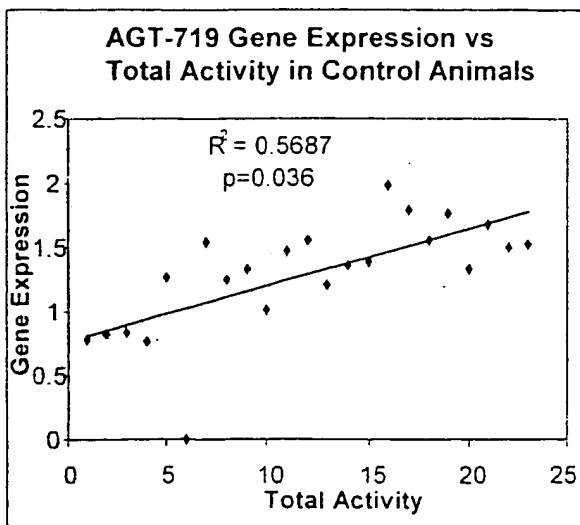
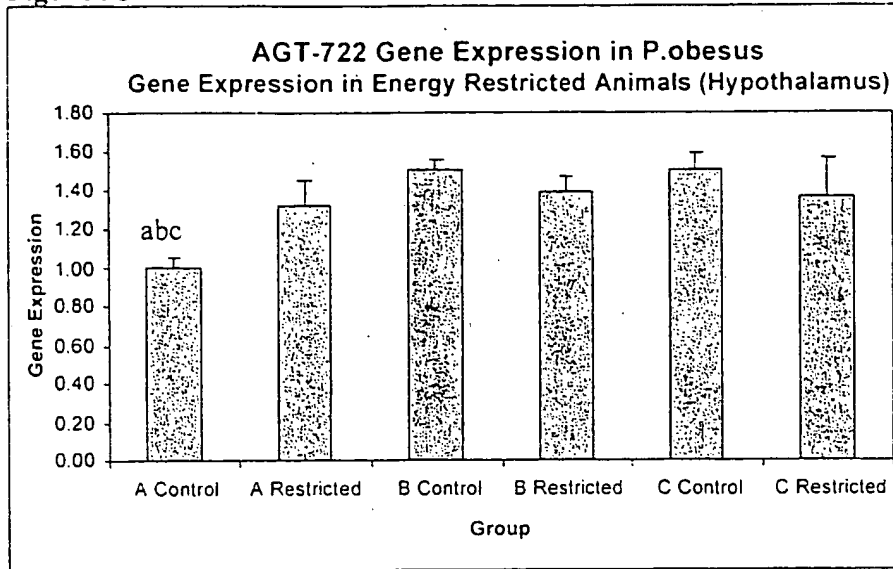


Figure 98:

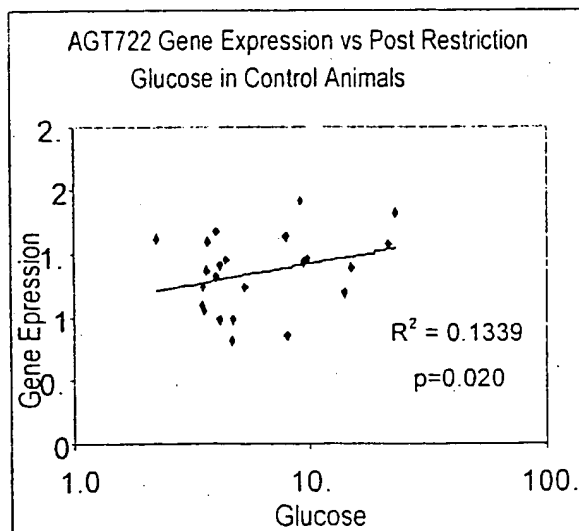


a: Gene expression significantly lower in A control animals compared to B control animals ( $p=0.002$ ).

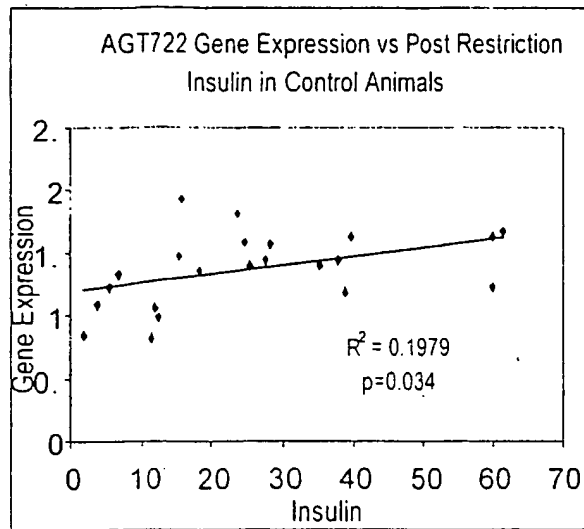
b: Gene expression significantly lower in A control animals compared to C control animals ( $p=0.002$ ).

c: Gene expression significantly lower in A control animals compared to A restricted animals ( $p=0.038$ ).

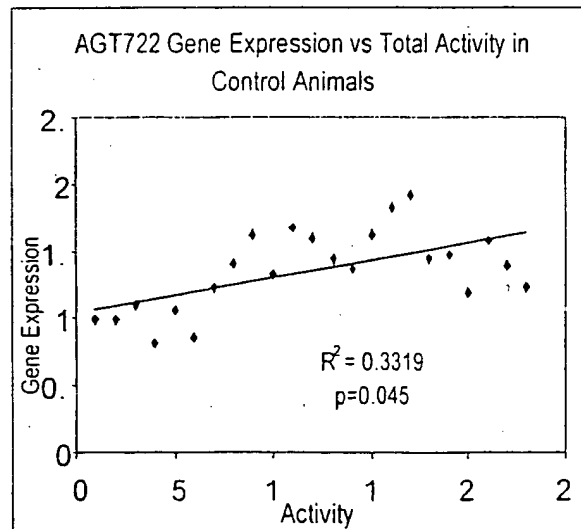
Figure 99:



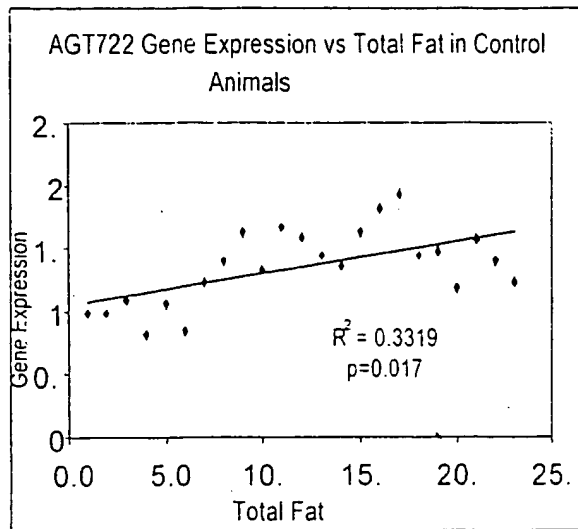
Gene expression positively correlated with post restriction glucose ( $p=0.020$ ) in control animals.

**Figure 100:**

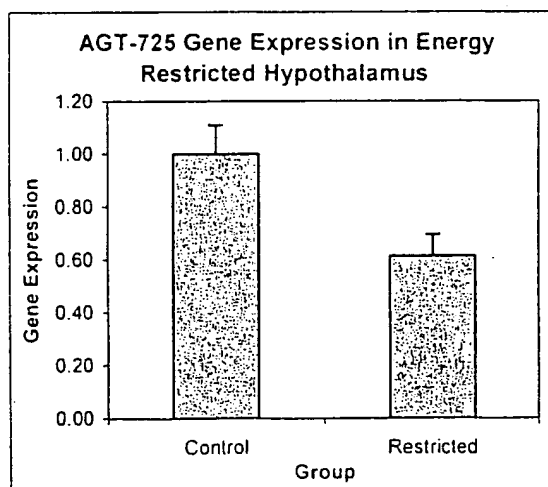
Gene expression positively correlated with post restriction insulin ( $p=0.034$ ) in control animals.

**Figure 101:**

Gene expression positively correlated with total activity ( $p=0.045$ ) in control animals.

**Figure 102:**

Gene expression positively correlated with total fat ( $p=0.017$ ) in control animals.

**Figure 103:**

**Figure 104:**

a: AGT-725 gene expression significantly lower in A controls when compared to C controls ( $p = 0.012$ )

b: gene expression significantly lower in C controls when compared to C energy restricted ( $p=0.012$ )

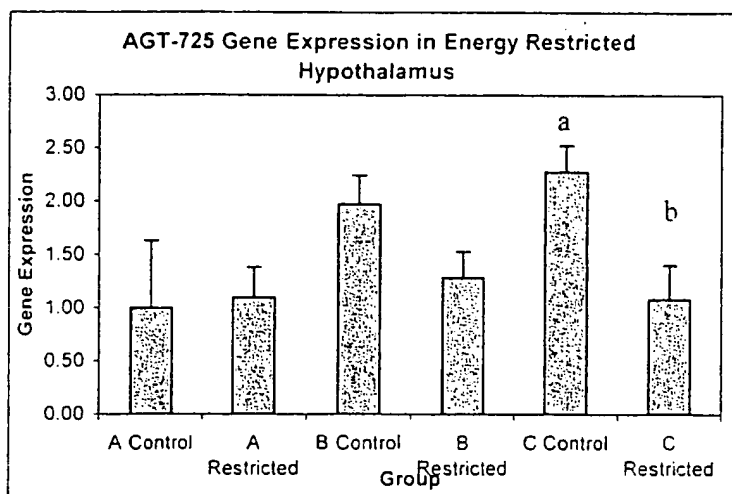


Figure 105:

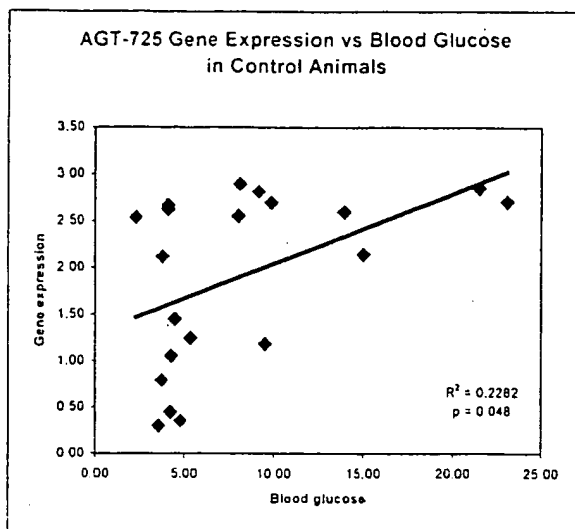
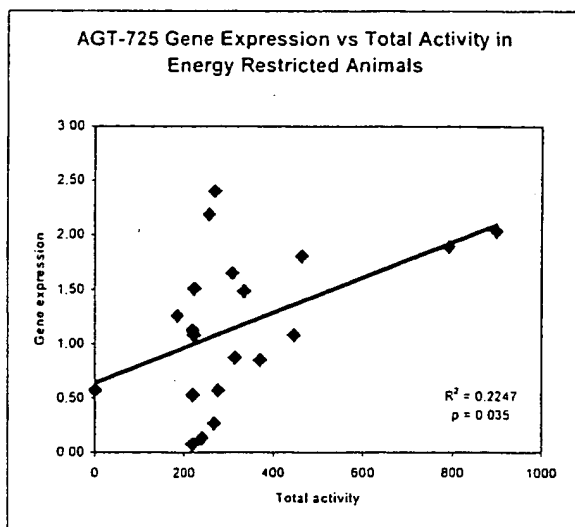
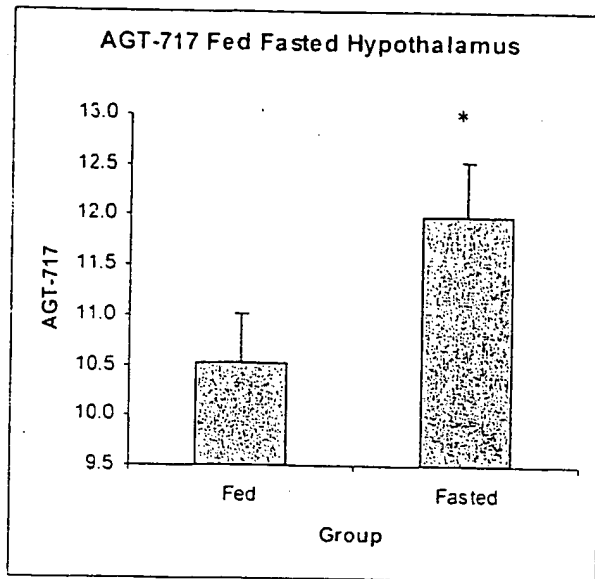


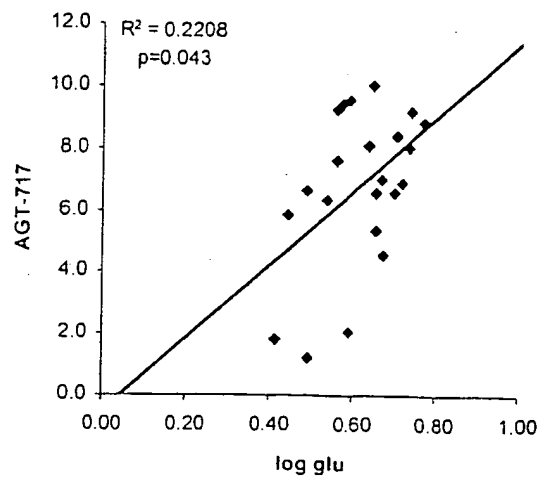
Figure 106:



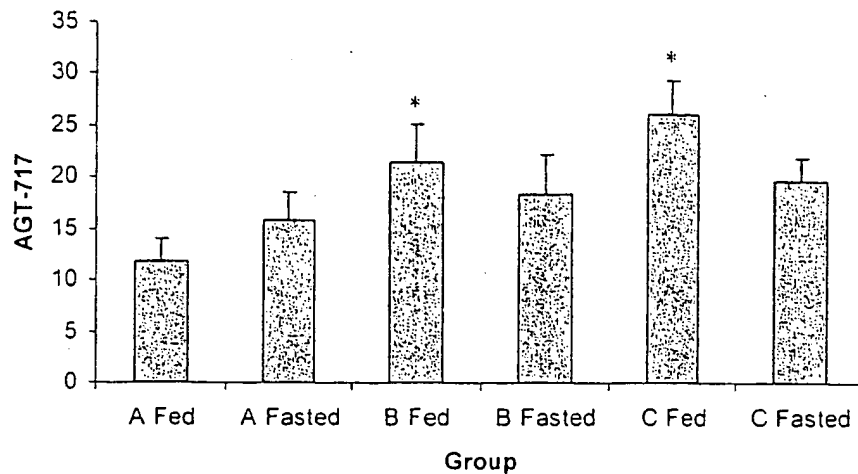
**Figure 107:** AGT-717 gene expression in all fed versus all fasted animals; \*p=0.049 compared to fed animals.



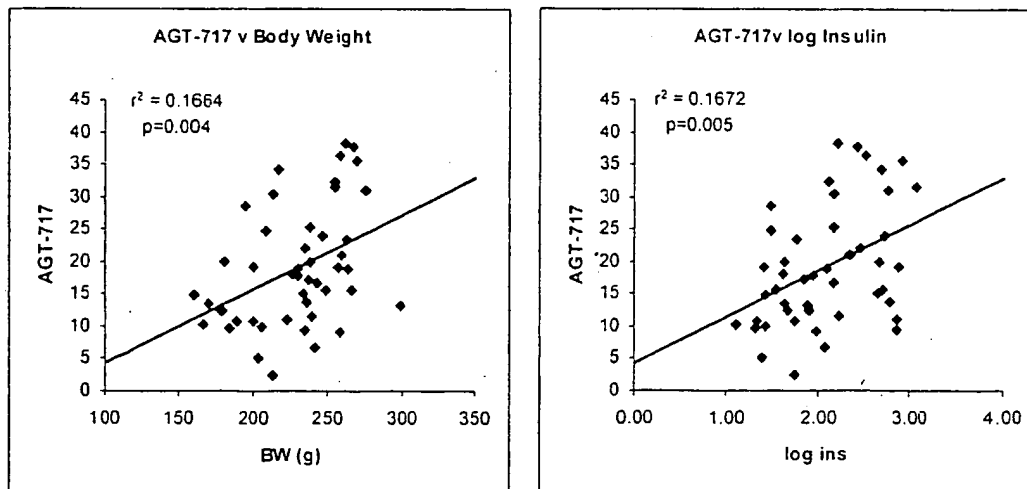
**Figure 108:** Linear association between AGT-717 and glucose in red gastrocnemius muscle of P. obesus fasted for 24 hr.



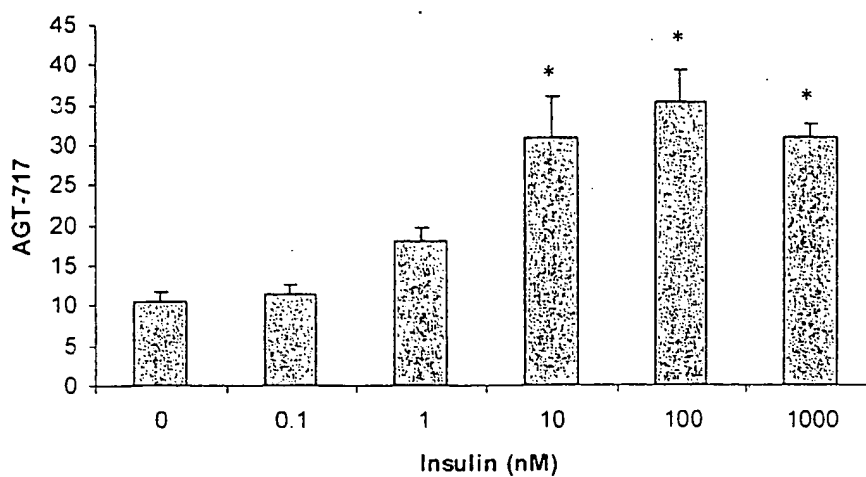
**Figure 109:** AGT-717 gene expression in mesenteric fat of fed and 24 hr fasted P. obesus; \* $p < 0.034$  compared to group A fed.



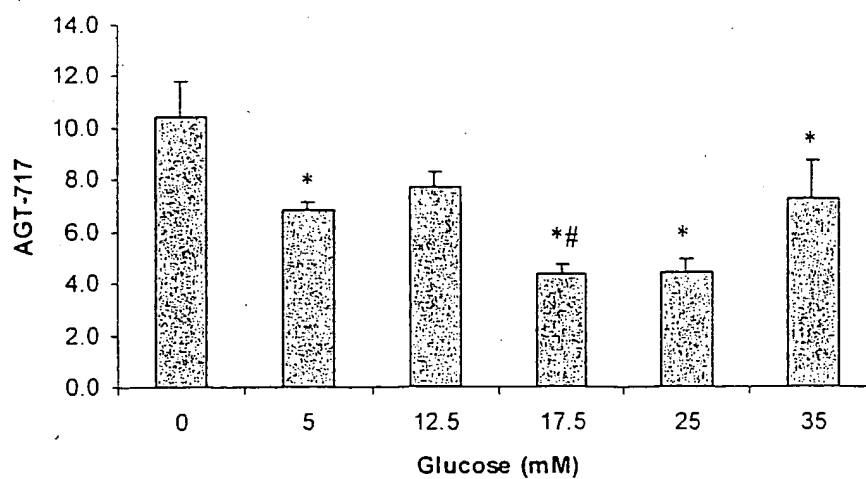
**Figure 110:** Linear associations of AGT-717 gene expression in mesenteric fat with body weight and insulin values in all animals.



**Figure 111:** AGT-717 gene expression in 3T3 cells treated with insulin for 24 hrs,  
\* $p < 0.01$  compared to 0 nM, 0.1 nM and 1 nM groups.



**Figure 112:** AGT-717 gene expression in 3T3 cells treated with glucose for 24 hr,  
\* $p < 0.05$  compared to 0 mM; # $p = 0.024$  compared to 12.5 mM.



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☒ **FADED TEXT OR DRAWING**
- ☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**